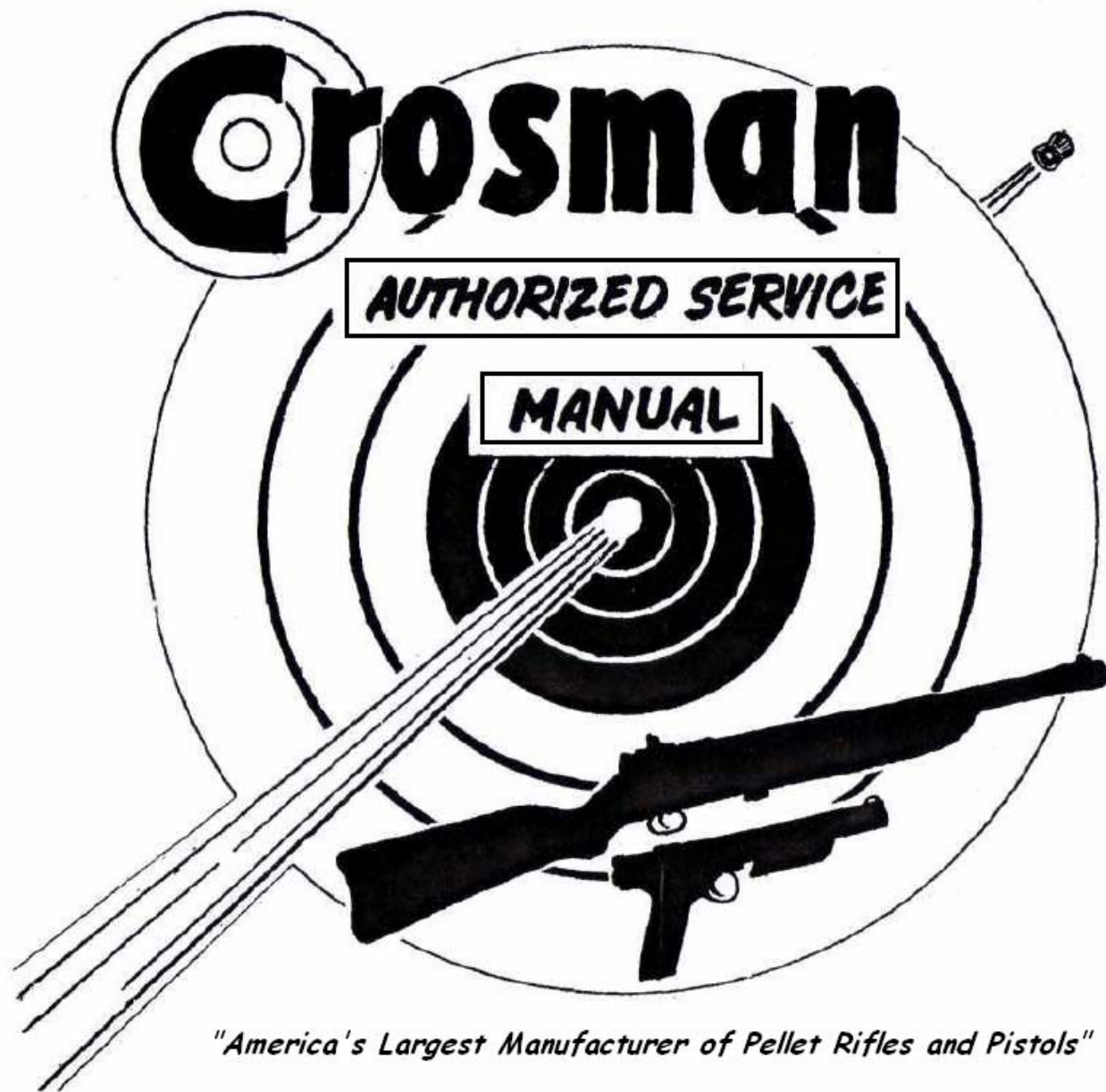




"America's Largest Manufacturer of Pellet Rifles and Pistols"

INTRODUCTION

This manual was prepared by the Crosman Arms Company, Inc., Fairport, New York, for reference in servicing all models of Crosman Pellgun Rifles, Pistols and Accessories.

The illustrations and written directions in this manual will be an aid in rendering good quality repair service to your customer.

The arrangement of the parts in the illustrations, so far as possible, are in the same relative positions as in the assembled unit. This is to identify the parts as well as to facilitate stripping and assembling the units.

The part numbers shown correspond to the manufacturers blue print number, and should be used along with part name when ordering parts for replacement.

Please keep this manual readily available to the individual in your organization who is responsible for the repair of Crosman units.

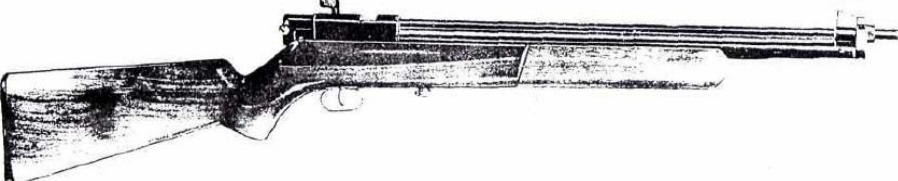
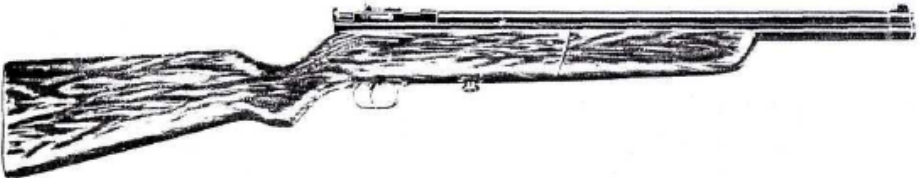
Sales Service Division
Crosman Arms Company, Inc.
Fairport, New York

INDEX

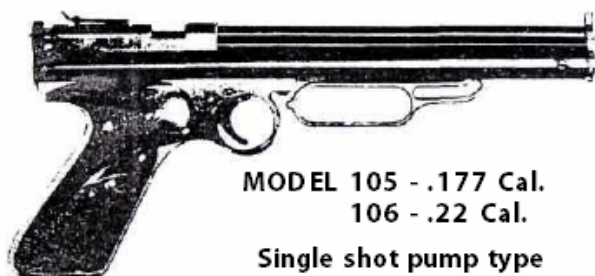
CROSMAN REPAIR MANUAL

SECTION	MODEL	TYPE	DRAWING PAGE	INSTRUCTION PAGE	PARTS LIST PAGE
1	100-101-102-104	Air Rifle	1.1-2-3-4	1.A-B-C	1.D-E
2	107-108	Air Rifle	2.1-2-3	2.A	2.B
3	109-110	Air Rifle	3.1	3.A	3.B
4	120	Air Rifle	4.1	4.A	4.B
5	140-147	Air Rifle	5.1-2-3-4	5.A-A.1-A.2	5.B-B.1
6	113-114	CO2 Rifle	6.1-2	6.A	6.B
7	118 Repeater	CO2 Rifle	7.1-2	7.A	7.B-C
8	160-167	CO2 Rifle	8.1-2-3-4-5-6-7-8	8.A,-A.1-A.2	8.B-B.1-B.2
9	105-106	Air Pistol	9.2-3-4-5	9.A	9.B
10	111-112-115-116	CO2 Pistol	10.1-2-3-4	10.A-B	10.C
11	130-137	Air Pistol	11.1-2	11.A	11.B-Mod.- 130-13
12	150-157	CO2 Pistol	12.1-2-3-4	12.A-A.1	12.B-B.1
14	180	CO2 Rifle	14.1-2-3-4	14.A-A.1	14.B-B.1-B.2
15	400 Repeater	CO2 Rifle	15.1-2-3-4-5	15.D-E-F	15.A-B-C-A.2
16	166 Repeater	CO2 BB Rifle	16.1-2-3-4	16.B-C	16.A-A.1-A.2
17	45 BB Single Action	Revolver	17.1-2-3	17.B-C-D	17.A-A.1
18	6 Single Action	Revolver	18.1	18.B-C	18.A
19	600 Semi-Auto.	CO2 Pistol	19.1-2	19.C-D-E-F-G-H	19.A-B-B.1
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21	677 Plink-O-Matic	BB Pistol			22.A
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23	38T & 38C	Revolver	23-1	23 A-1-2-3-4-5-6	23 B-1-2

IDENTIFICATION OF ALL CROSMAN MODELS

	MODEL 100 - .177 Cal. 101 - .22 Cal. Single Shot pump type air rifle
MODEL 102 - .22 Cal. 104 - .177 Cal. Magazine pump type air rifle	
	MODEL 107 - .177 Cal. 108 - .22 Cal Single Shot pump type air rifle Town and Country Model
MODEL 109 - .177 Cal. 110 - .22 Cal Single Shot pump type air rifle. Town & Country Jr. Model	
	MODEL 120 - .22 Cal. Single shot pump type air rifle Not produced in .177 Cal.

IDENTIFICATION OF ALL CROSMAN MODELS



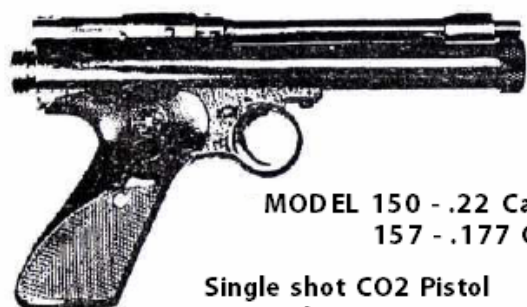
MODEL 105 - .177 Cal.
106 - .22 Cal.

Single shot pump type
air pistol.



MODEL 115 - .177 Cal.
116 - .22 Cal.

Single shot CO2 Gas Pistol
6" Barrel.
Use with 10 oz. cylinder



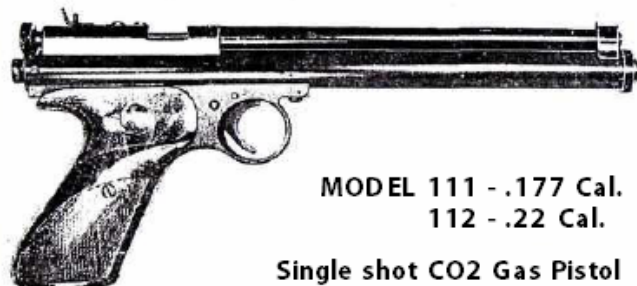
MODEL 150 - .22 Cal.
157 - .177 Cal.

Single shot CO2 Pistol
Use with Crosman Powerlets.



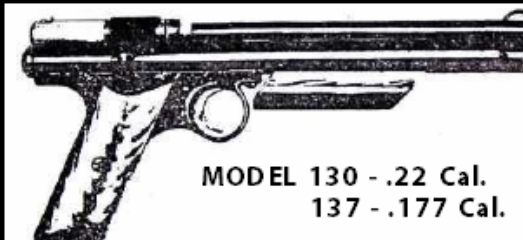
March 29, 1956
MODEL 150 - .22 Cal.
157 - .177 Cal.

Single shot CO2 Pistol
Use with Crosman Powerlets.



MODEL 111 - .177 Cal.
112 - .22 Cal.

Single shot CO2 Gas Pistol
8" Barrel.
Use with 10 oz. cylinder



MODEL 130 - .22 Cal.
137 - .177 Cal.

Single shot pump type
air pistol

IDENTIFICATION OF ALL CROSMAN MODELS

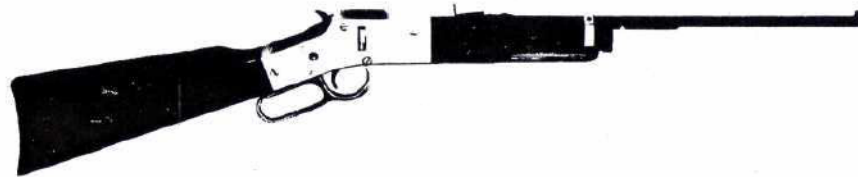


MODEL 400 - .22 Cal.

Repeater CO2 Gas Rifle.
Use with (2) Crosman Powerlets.

MODEL 166 - Hahn Super BB Repeater

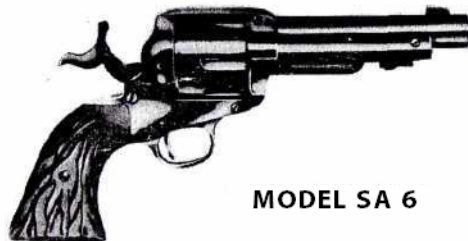
Use one Crosman Powerlet.



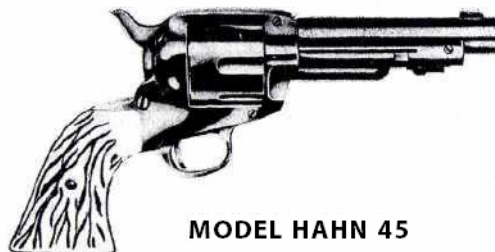
CROSMAN
V350 Slide - Action
BB Rifle



MODEL 600



MODEL SA 6

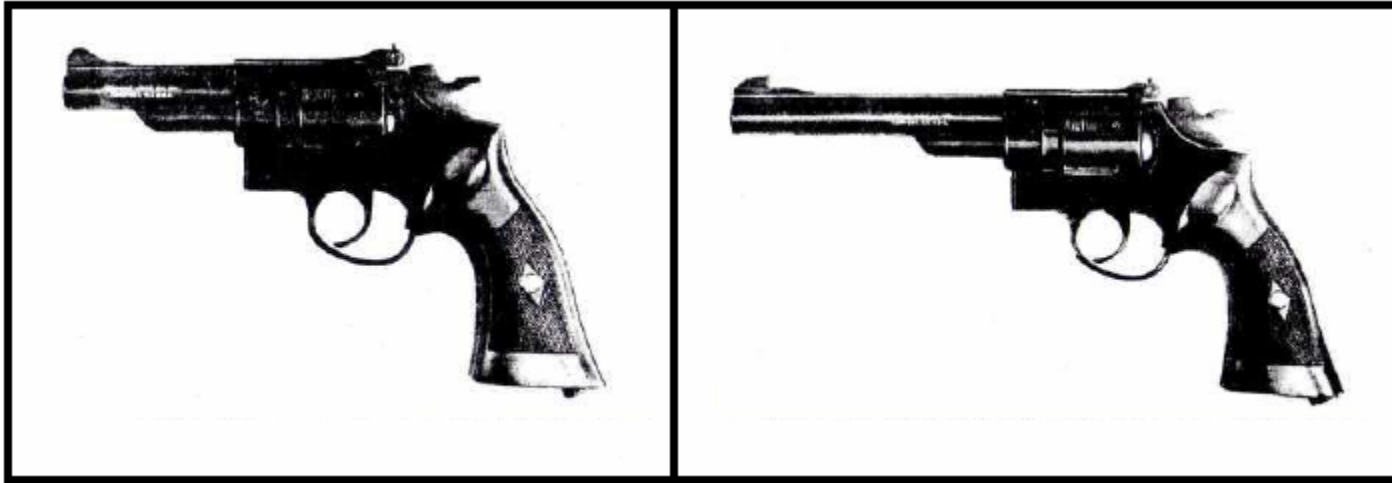


MODEL HAHN 45



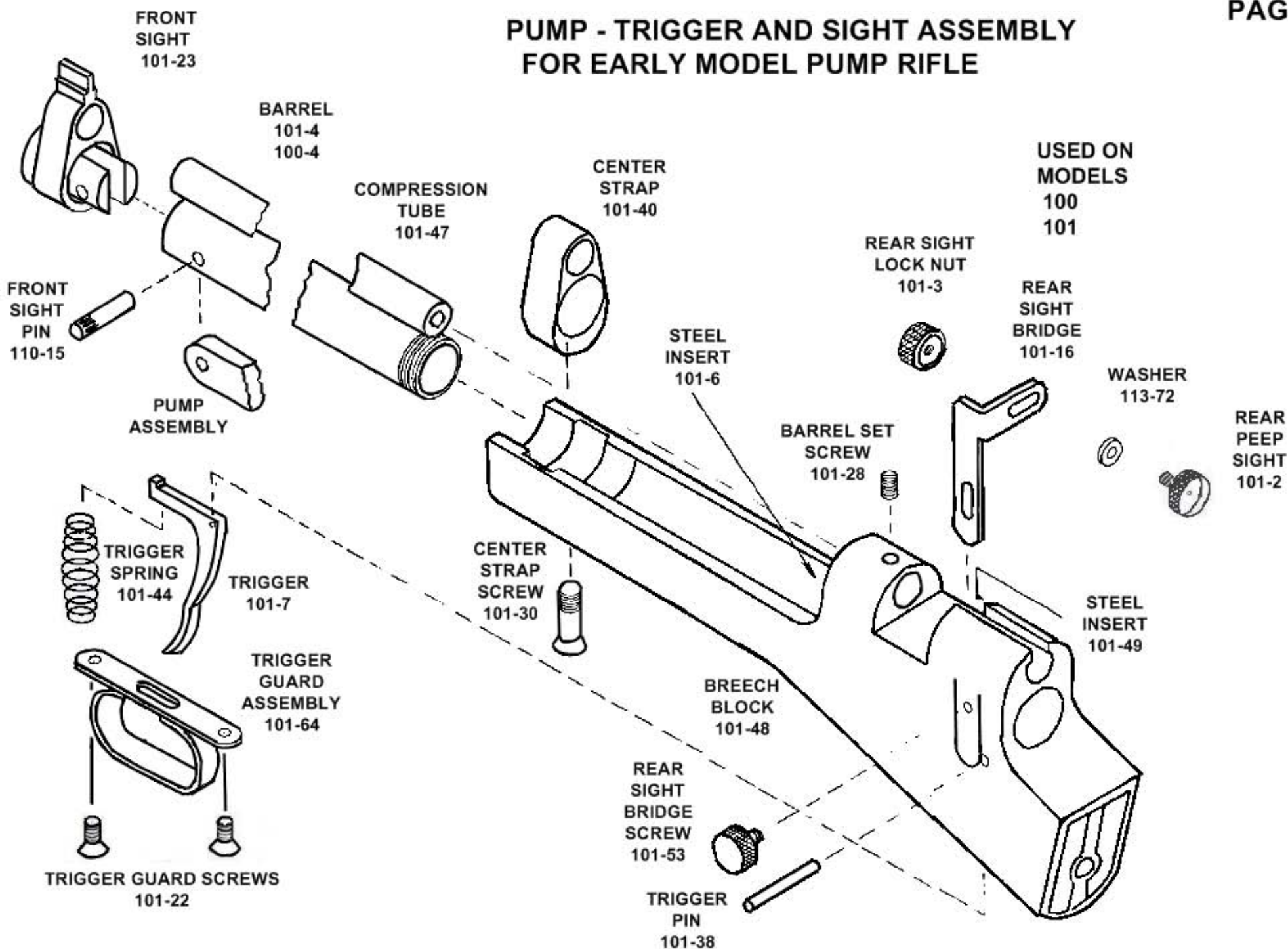
V-300

IDENTIFICATION OF ALL CROSMAN MODELS



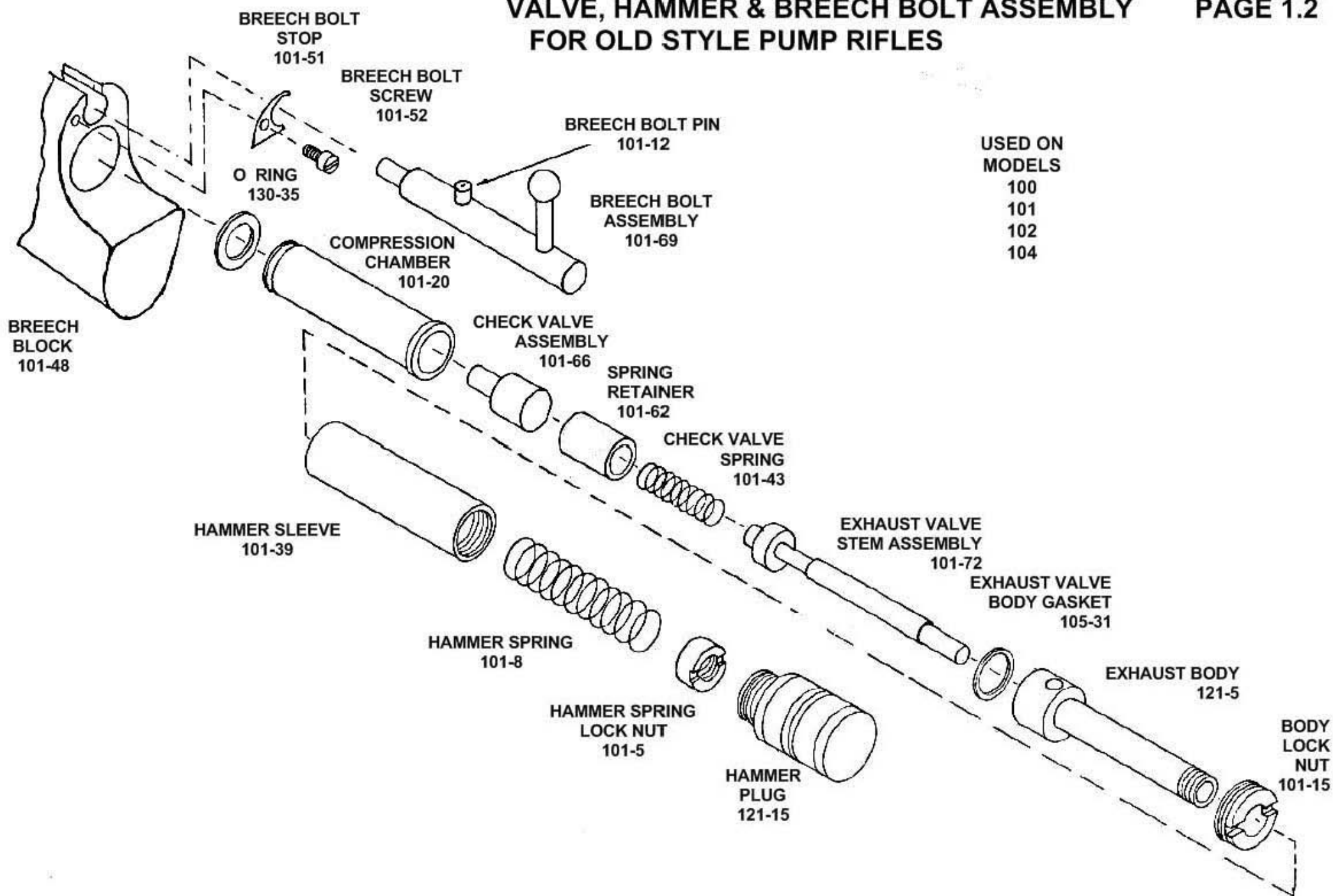
Model 38C (Combat) and 38T (Target) Revolvers are 6 shot CO2 Powered Single and Double action designed to shoot Crosman .22 Cal.

PUMP - TRIGGER AND SIGHT ASSEMBLY FOR EARLY MODEL PUMP RIFLE



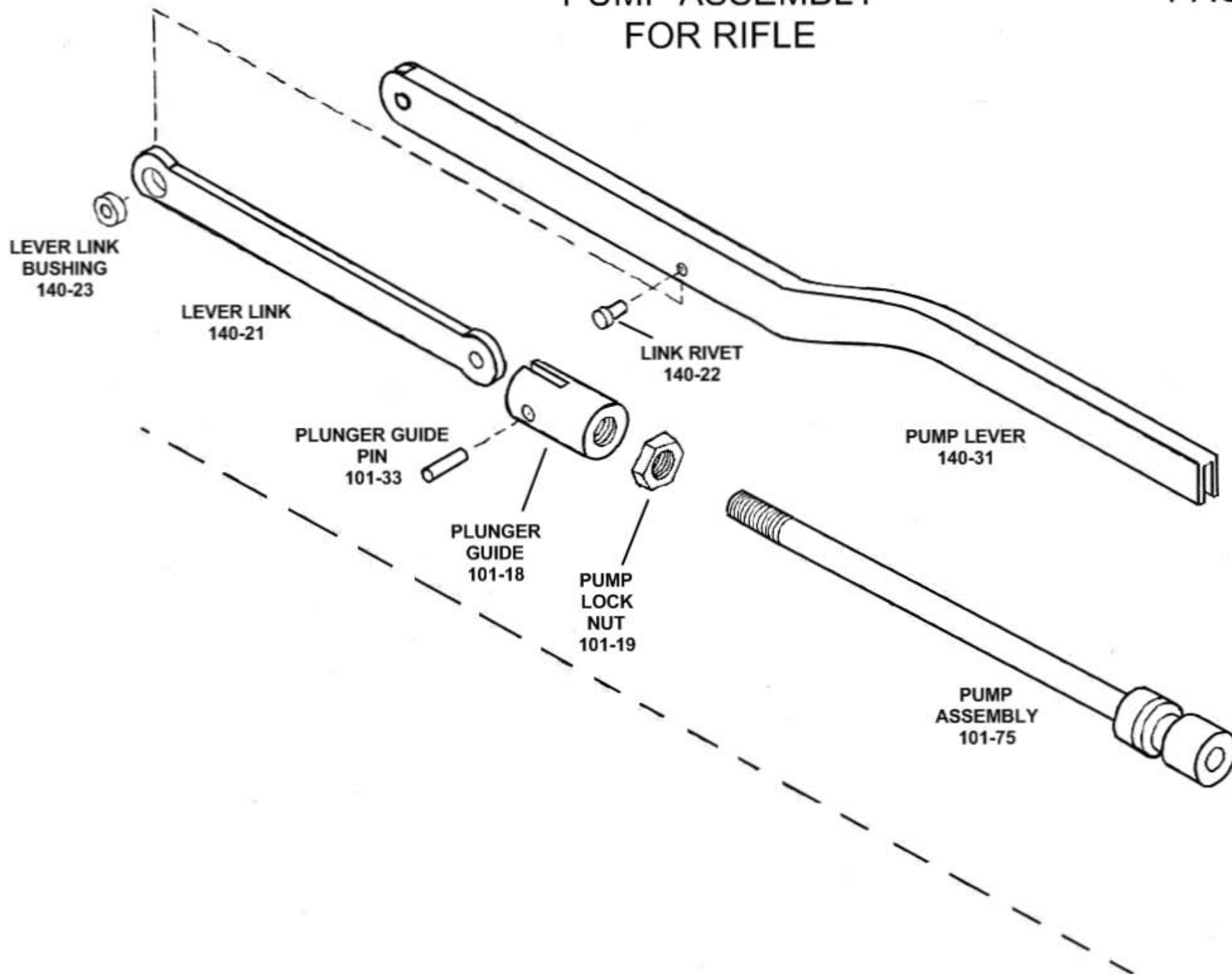
VALVE, HAMMER & BREECH BOLT ASSEMBLY FOR OLD STYLE PUMP RIFLES

PAGE 1.2



PUMP ASSEMBLY FOR RIFLE

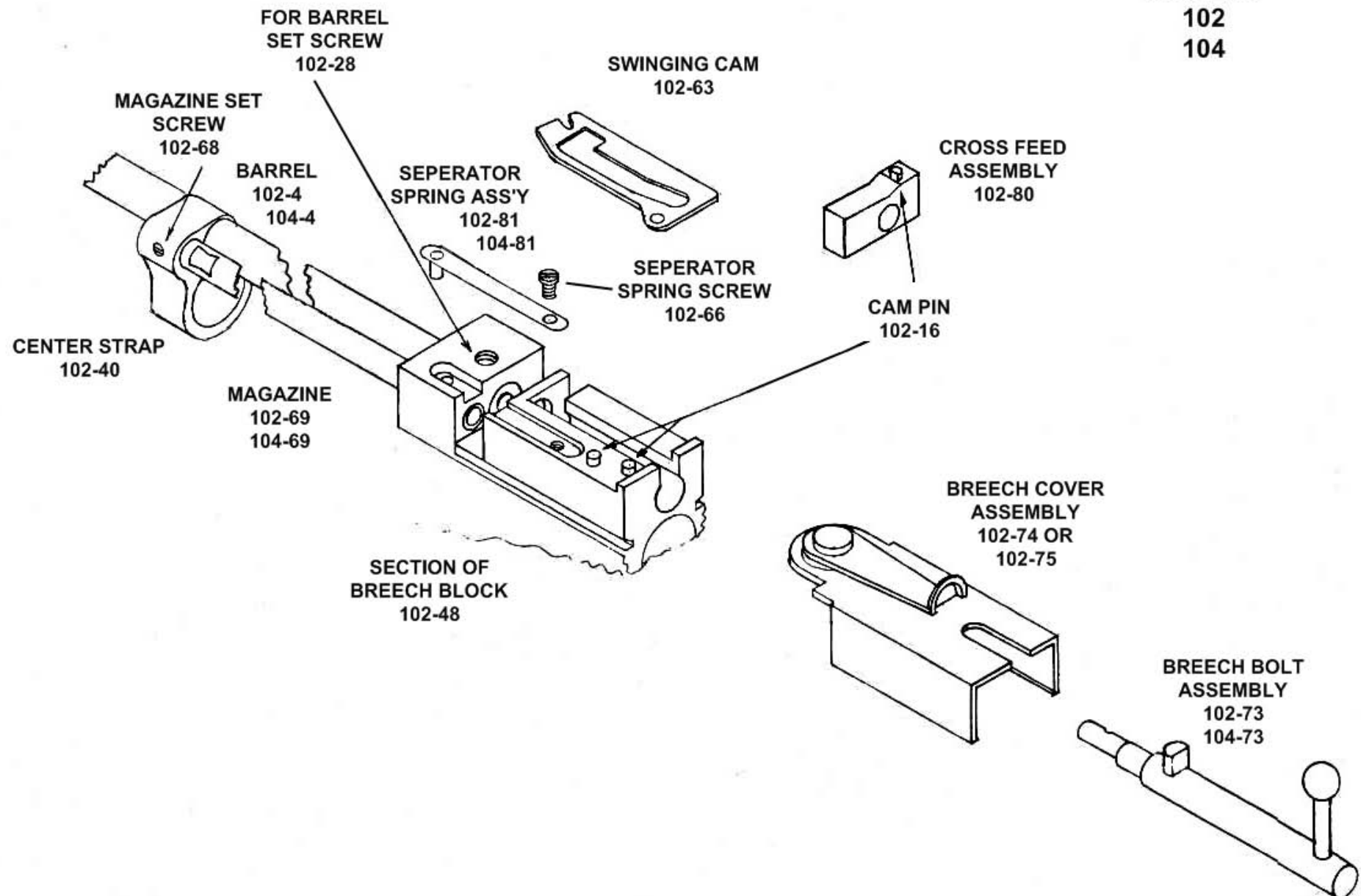
PAGE 1.3



USED ON MODELS

100
101
102
104
107
108
109
110
120
140
147

USED ON
MODELS
102
104



DISASSEMBLY PROCEDURE FOR AIR RIFLES MODELS 100-101-102-104 (REFER TO DRAWINGS PAGE 1.1, 1.2, 1.3, 1.4)

1. Clamp Rifle in vise on Breech Block (101-48).
2. Remove Stock and Stock Bolt.
3. Pull Hammer out to cock and unscrew Hammer Plug. (121-15).
4. Unscrew Hammer Spring Lock Nut. (101-5).
Use Special Wrench (T-I).
Remove Hammer Sleeve (101-39)
Remove Hammer Spring (101-8).
5. Remove Breech Bolt Screw (101-52)
Remove Breech Bolt Stop (101-51)
Remove Breech Bolt Ass'y. (101-69).
6. Remove Body Lock Nut (101-15).
Use Special Wrench (T-I).
7. Remove Exhaust Body (121-5)
Remove Exhaust Valve Body Gasket (105-31).
Remove Exhaust Valve Stem Ass'y. (101-72).
Remove Check Valve Spring (101-43).
Remove Spring Retainer (101-62)
Remove Check Valve Ass'y. (101-66).
8. Reverse Breech block in Vise, Drive out Front Sight Pin (101-15),
NOTE: Some Units have retaining band for pin, slip back out of way to remove pin.
9. Remove Front Sight (101-23).
10. Remove Pump Lever and Pump Assembly.
11. Drive Compression Chamber (101-20) out of tube, using 9/16" Dia. Rod. Drive towards the rear. Depress Trigger to prevent damage to Sear.

VALVE ASSEMBLY (DRAWING PAGE 1.2). USED ON AIR RIFLE MODELS 100-101-102-104

FUNCTION: TO RECEIVE, STORE AND EXPELL AIR.

MALFUNCTIONS:

FAILURE TO HOLD COMPRESSION:

If your rifle fails to hold compression for normal shooting, test as follows: Cock the Hammer, pumping four strokes of compressed air into Chamber, close Breech Bolt and insert muzzle end in container of water. If a steady stream of bubbles appear on surface, the Exhaust Valve is not functioning properly.

If the Exhaust Valve is in good condition, test for Check Valve trouble as follows: Cock Hammer, pump four strokes of compressed air into Chamber, pull out Lever so that end of Pump is above small suction hole on Pump Tube. Wait a few seconds to permit air between Chamber and Pump to escape, then apply moistened finger to suction hole and if a stream of bubbles appear, the Check Valve is not functioning properly.

REFER TO ITEMS 1-2 -3 -4 -5 -6 -7 PAGE I-A FOR DISASSEMBLY.

Inspect Check Valve and Exhaust Valve Gasket and Metal Seats for damaged surfaces. Valve heads must be tight on Stems.

NOTE: Various systems were used on these models. System shown on Page 1.2 should be installed on all 100-101-102-104 Models repaired.

If Valve Assembly turns while removing Body Lock Nut, remove Barrel Set Screw (101 - 28) and line up air hole in Valve with lineup Pin tool No . T-3. When re-assembling Exhaust Valve Air ports must be lined up with pin thru hole in Barrel, and Body Lock Nut part 101-15 must be firmly secured t o prevent leaking. Compression Chamber part 101-20 should be replaced with modified Chamber containing "O" Ring, part 130-35. This will insure no by passing of air while pumping.

Exhaust Valve Body Gasket, part 105-31 should be replaced. All internal Valve parts must be kept clean.

HAMMER ASSEMBLY DRAWING. PAGE 1.2 USED ON AIR RIFLE MODELS 100-101-102-104

FUNCTION: To cock rifle and release air when trigger is squeezed.

MALFUNCTION: CAUSE:

Hammer, Sleeve failing to engage trigger sear.

Corrective Measure:

Replace part
Refer to Item 1- 2-3- 4- Page 1-A for Dis-assembly.

Cause:

Excessive wear on inner end of sleeve.

BREECH BOLT ASSEMBLY Part 101-69 Used on Air Rifle Model 101, Part 100-69 used on Model 100.

Refer to Drawing Page 1.2

FUNCTION: TO CHAMBER PELLET INTO BARREL AND TO SEAL BREECH END OF BARREL WHEN RIFLE IS FIRED.

MALFUNCTION:

Air blow back when rifle is fired, around Breech Bolt or Barrel

FOR CORRECTIVE MEASURE:

Fit Bolt Lock Pin to tight Lock or Seal Barrel

Note: Various styles of Breech Bolts were used on these Models. Drawings on Page 1.2 shows latest styles only.

REFER TO ITEM 5 PAGE 1-A FOR DIS-ASSEMBLY OF 100 and 101 Models.

BREECH BOLT ASSEMBLY:

Part #102-73 used on Model 102 REFER TO DRAWING PAGE 1.4

Part #104-73 used on Model 104

PUMP LEVER ASSEMBLY: DRAWING PAGE 1.3 Used on Air Rifle Models 100-101-102-104

FUNCTION: To compress air into compression Chamber.

MALFUNCTIONS:

1. Worn Lever Link and Lever Link Rivet Bearing surfaces. Note: These Models **DO NOT HAVE LEVER LINK BUSHINGS** **PART** #140-23. Lever Link, Part #101-24 and Part #101-27 Lever Link Rivet are used on these Models.
2. Gun fails to Compress:
On all Models except 140-147 replace Pump Cup as follows:
Loosen Lock Nut (101-19) and Felt Retainer (101-58). Slide back Felt Washer (101-31) and Compression Head Washer (101-50). Unscrew Compression Head (101-26). Replace Pump Cup (101-36) and re-assemble. NOTE: Compression Head must be tight. Insert into Tube and adjust pump to obtain max. stroke. Adjustment is made at plunger guide (101-18 with pump lever in closed position an Pump Adj. (T-2) in place.

CORRECTIVE MEASURES:

Replace when necessary with new style link, shown on page 1.3

Inspect Pump Cup for damage.

FEEDING MECHANISM MODEL 102-104 REFER TO DRAWING 1.4

FUNCTION: To feed pellets from magazine tube into Barrel Chamber through crossfeed actuated by Separator Spring assembly and Swinging Cam.

MALFUNCTION: Failure to feed caused by worn or out of line parts.

CORRECTIVE ACTION:

Replace worn parts, line up crossfeed assembly (102-80) Breech Bolt Ass'y. (102-73) and Barrel Ass'y, Swinging Cam (102-63) on Cam Pins (102-16) and adjust pins so Swinging Cam moves crossfeed in line with magazine tube hole.

BREECH Cover 102-74 (Peep Sight) 102-75 (Open Sight) must fit snug to insure proper cam action.

CROSMAN PARTS LIST

MODEL 100 - .177 Cal. Air Rifle

MODEL 101 - .22 Cal. Air Rifle

Model 104 - .177 Cal. Magazine Air Rifle

Model 102 - .22 Cal. Magazine Air Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>		<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
101-1	Forearm Pin	.50	Doz.	101-50	Breech Bolt Stop	.25
101-2	Rear Sight Peep	.32		101-52	Breech Bolt Stop Screw	.50 Doz.
101-3	Rear Sight Lock Nut	.16		101-53	Bridge Adjusting Screw	.10
101-4	Barrel	3.54		101-56	Forearm	2.00
101-5	Hammer Sleeve Lock Nut	.15		101-58	Felt Retainer	.20
101-7	Trigger	.32		101-59	Butt Plate	.50 Doz.
101-8	Hammer Spring	.18		101-60	Butt Plate Screw	.50
101-12	Breech Bolt Pin	.50	Doz.	101-61	Exhaust Valve Nut	.36
101-15	Body Lock Nut	.25		101-62	Spring Retainer	.18
101-16	Rear Sight Bridge	.30		101-63	Exhaust Valve Washer	.16
101-17	Exhaust Valve Stem	.24		101-64	Trigger Guard Assembly	.30
101-18	Pump Guide	.42		101-72	Exhaust Valve Stem Assembly	1.00
101-19	Pump Rod Lock Nut	.50	Doz.	101-66	Check Valve Assembly	1.00
101-20	Compression Chamber	1.00		101-69	Breech Bolt Assembly	.80
101-22	Trigger Guard Screw	.50	Doz.	101-73	Compression Chamber Assembly	1.35
101-23	Front Sight	1.60		101-74	Stock	4.00
101-25	Plunger Rod	.24		101-65	Exhaust Valve Assembly	2.25
101-26	Compression Head	.16		101-75	Pump Rod Assembly	1.12
101-28	Barrel Set Screw	.50	Doz.			
101-29	Stock Bolt Washer	.50	Doz.		Interchangeable Parts	
101-30	Center Strap Screw	.12				
101-31	Felt Washer	.50	Doz.	110-15	Front Sight Pin	.08
101-32	Check Valve Stem	.35		113-72	Sight Washer	.08
101-33	Plunger Guide Pin	.50	Doz.	130-35	"O" Ring	.16
101-35	Check Valve Nut	.36		105-31	Exhaust Valve Gasket	.10
101-36	Pump Cup	.16		121-5	Exhaust Valve Body	1.25
101-37	Check Valve Washer	.16		121-15	Hammer Plug	.35
101-38	Trigger Pin	.50	Doz.	140-31	Pump Lever	.60
101-39	Hammer Sleeve	.70		140-22	Link Rivet	.16
101-40	Center Strap	.75		140-23	Lever Link Bushing	.12
101-41	Stock Bolt	.40		140-21	Lever Link	.32
101-43	Check Valve Spring	.18				
101-44	Trigger Spring	.18				
101-47	Compression Tube	2.70				
101-48	Breech Block	3.00				
101-50	Compression Head Washer	.16				

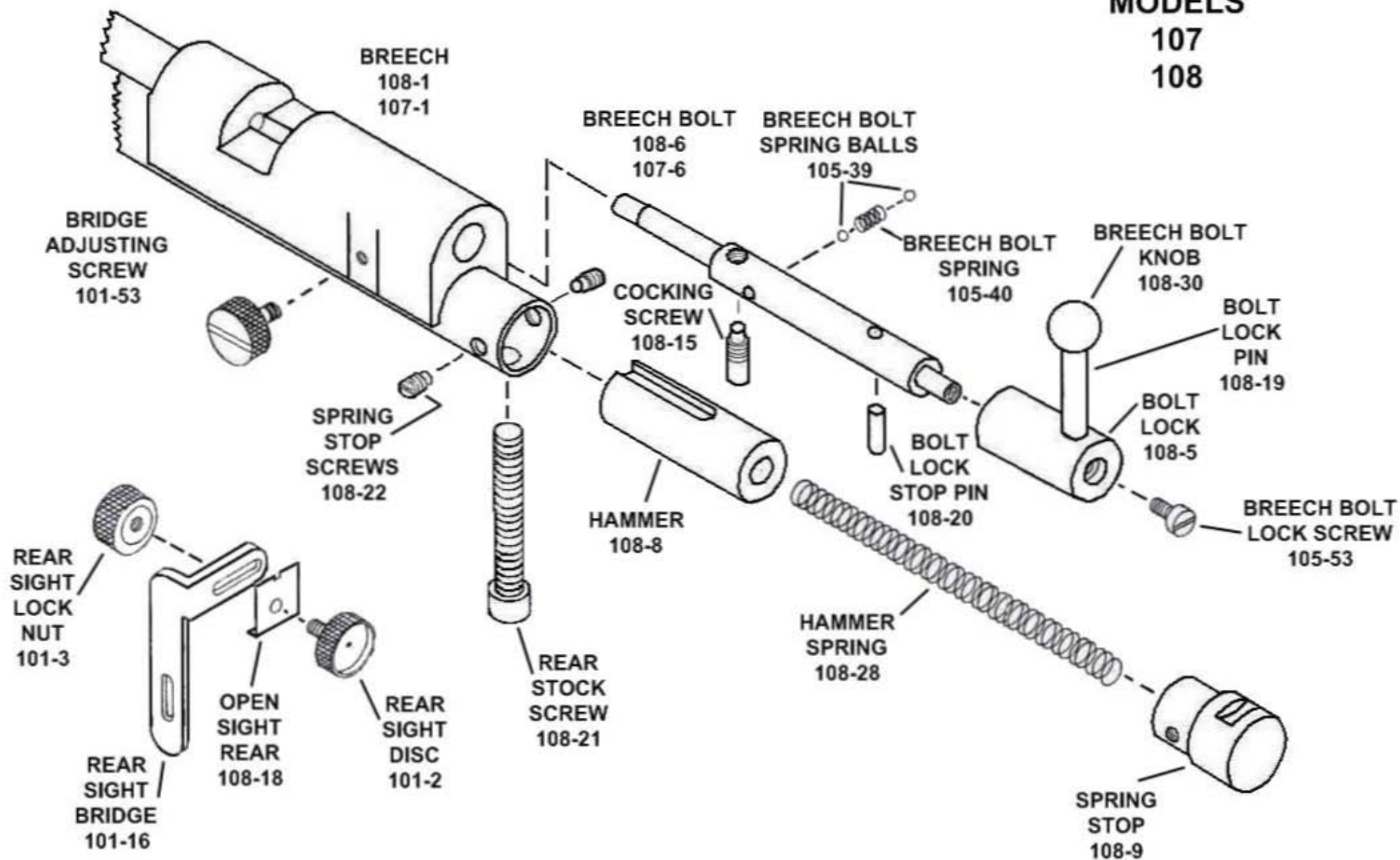
CROSMAN PARTS LIST

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
100-4	Barrel	3.54
100-69	Breech Bolt Assembly	.80
102-2	Cover	1.00
102-4	Barrel	3.54
102-12	Breech Bolt Lock Pin	.50 Doz.
102-16	Cam Pin	.50 Doz.
102-28	Barrel Set Screw	.50 Doz.
102-40	Center Strap	.85
102-48	Breech Block	4.00
102-51	Peep Sight	.25
102-52	Rear Sight Set Screw	.50 Doz.
102-63	Swinging Cam	.40
102-66	Separator Spring Screw	.50 Doz.
102-67	Magazine Tube Clip	.10
102-68	Magazine Tube Set Screw	.50 Doz.
102-69	Magazine Tube	.50
102-72	Rear Sight Open	.25
102-73	Breech Bolt Assembly	.80
102-74	Cover Assembly (Peep)	1.35
102-75	Cover Assembly (Open)	1.35
102-80	Cross Feed Assembly	.40
104-4	Barrel	3.54
104-65	Separator Spring Pin	.50 Doz.
104-69	Magazine Tube	.50
104-73	Breech Bolt Assembly	.80
104-80	Cross Feed Assembly	.40

BREECH BOLT AND HAMMER ASSEMBLY FOR MODEL 108 RIFLE

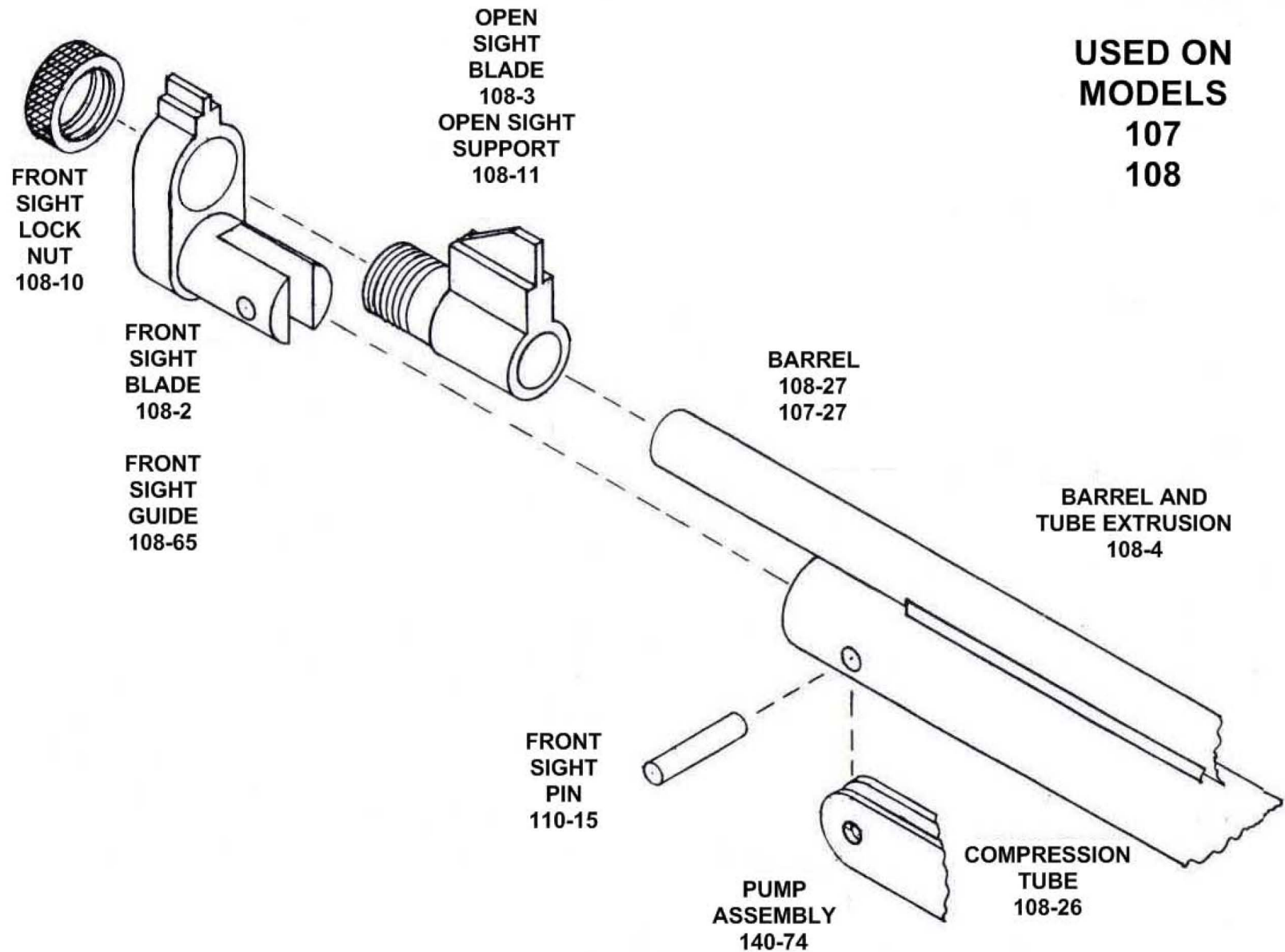
PAGE 2.1

USED ON
MODELS
107
108



FRONT SIGHT ASSEMBLY FOR MODEL 108 RIFLE

PAGE 2.2



VALVE ASSEMBLY FOR PUMP RIFLE

**USED ON
MODELS**

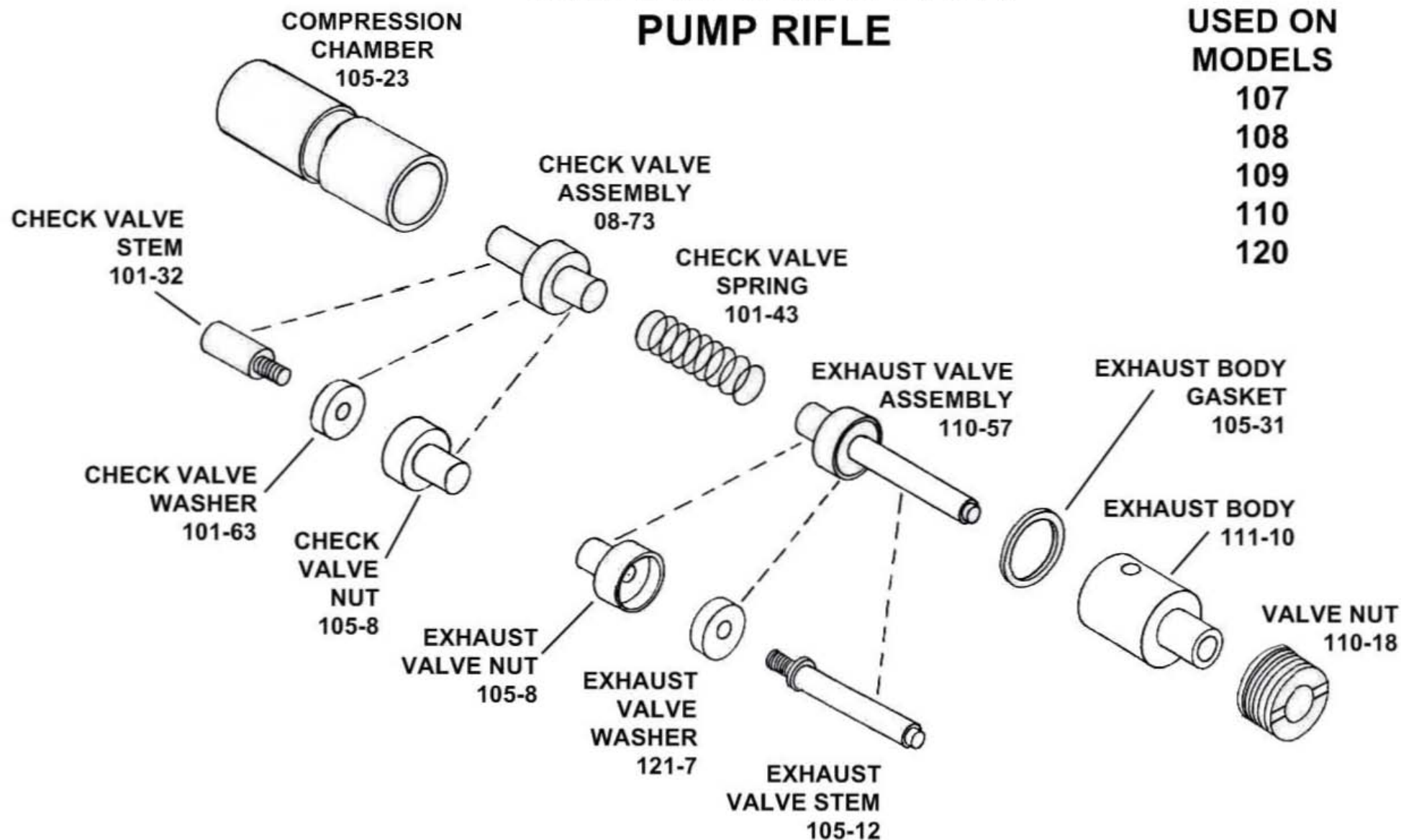
107

108

109

110

120



DISASSEMBLY PROCEDURE FOR AIR RIFLE MODELS 107-108 REFER TO DRAWINGS PAGE 2.1, 2.2, 2.3

1. Remove Rear Stock Screw (108-21).
Remove Knurled Locating Screw Nut from under side of stock.
Remove Stock.

2. Clamp unit in vise on Breech Block (108-1).
Unscrew Breech Bolt Lock Screw (105-53).
Remove Breech Bolt Lock Assembly.

3. Remove Spring Stop Screws (108-22).
Remove Spring Stop (108-9).
Remove Hammer Spring (108-28).
Remove Hammer (108-8).

4. Remove Cocking screw (108-15) thru slot in Tube.
Remove Breech Bolt (108-6) CAUTION; Breech Bolt Spring Balls (105-39) and Breech Bolt Spring (105-40) may fall out when Breech Bolt is removed.

NOTE: Compression Chamber (105-23) and Locating Screw is soldered into Tube (108-26). Breech (108-1) is soldered to Compression Tube (108-26).

VALVE SYSTEM FOR AIR RIFLES; Refer to Drawings Page 2.3. Used on Models 107-108-109-110-120

FUNCTION; To receive, store and expel air.

MALFUNCTIONS; Failure to hold compression. Inspect Check Valve and Exhaust Valve Gaskets and metal seats for damaged surfaces. Valve heads must be tight on stems.
When re-assembling Valve Body to Tube, blind hole opposite Air Port hole must be lined up with line up pin (T-3) thru hole in bottom of Tube.
Exhaust Valve Body Gasket part (105-31) should be replaced. All internal Valve parts must be kept clean. Valve, Nut (110-18) must be tight to prevent leak around Gasket.

5. Remove Valve Nut (110-18) using Special Wrench T-I). Exhaust Valve Body must be held in position with line up pin (T-3) in blind hole provided for this purpose, while unscrewing Body Lock Nut.
Remove Exhaust Valve Body Assembly from Tube with threaded portion of Valve Extractor (T-5).
Shake out Check Valve Assembly (108-73).
Shake out Check Valve Spring (101-43).
NOTE: If Exhaust Valve Body Gasket (105-31) adheres to Chamber, it can be picked out with wire hook. Refer to drawings Page 2.3 for Valve Assembly detail.

6. Drive out Front Sight Pin (110-15).
Remove Front Sight & Guide Assembly.
Remove Pump Assembly (140-74).
Refer to Drawings Page 2.2

PUMP & LEVER ASSEMBLY.

DRAWINGS PAGE 1.3

Refer to Page 1-C for malfunctions and Corrective measures.

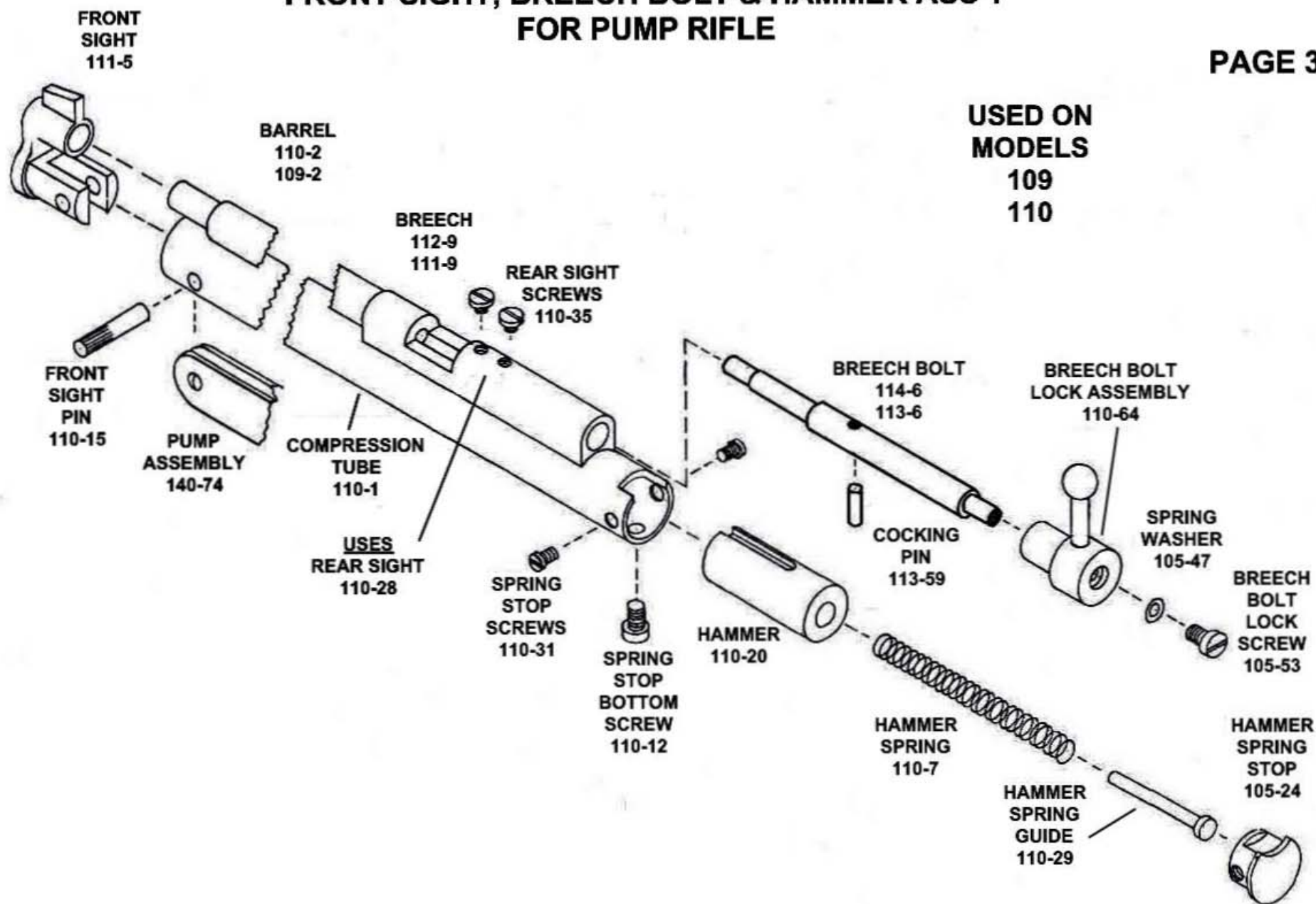
CROSMAN PARTS LIST

Page 2.B

PART NO.	PART NAME	PRICE	PART NO.	PART NAME	PRICE
108-4	Barrel & Tube Extrusion	.50	101-25	Plunger Rod	.24
108-6	Breech Bolt	.40	101-26	Compression Head	.16
108-7	Spring Washer	.50	101-31	Felt Washer	.50 Doz.
108-8	Hammer	.60	101-32	Check Valve Stem	.35
108-9	Spring Stop	.55	101-33	Pump Guide Pin	.50 Doz.
108-10	Front Sight Lock Nut	.20	101-36	Pump Cup	.16
108-13	Locating Pin Screw	.25	101-43	Check Valve Spring	.18
108-14	Locating Pin Screw Nut	.25	101-50	Compression Head Washer	.16
108-15	Cocking Screw	.10	101-53	Bridge Adjusting Screw	.10
108-16	Stock	7.80	101-58	Felt Retainer	.20
108-18	Open Sight, Rear	.12	101-63	Exhaust & Check Valve Washer	.16
108-19	Bolt Lock Pin	.50	105-8	Exhaust Valve Nut	.36
108-20	Bolt Stop Pin	.10	105-12	Valve Stem	.18
108-21	Rear Stock Screw	.12	105-31	Exhaust Valve Gasket	.10
108-22	Spring Stop Screw	.50	105-39	Breech Bolt Spring Ball	.50 Doz.
108-25	Trigger Spring	.20	105-53	Breech Bolt Lock Screw	.50 Doz.
108-27	Barrel	3.54	110-15	Front Sight Pin	.08
108-28	Hammer Spring	.18	110-21	Dummy Trigger Pin	.50 Doz.
108-31	Trigger Guard Screw	.50	110-36	Trigger & Forearm Pin	.50 Doz.
108-32	Butt Plate	.48	110-57	Exhaust Valve Assembly	1.44
108-57	Butt Plate Screw	.50	110-66	Check Valve Nut	.36
108-62	Front Sight Locating Pin	.50	111-10	Exhaust Valve Body	.36
108-68	Trigger Guard Assembly	.30	140-21	Lever Link	.32
108-69	Trigger	.32	140-22	Link Rivet	.16
108-73	Check Valve Assembly	1.00	140-23	Lever Link Bushing	.12
108-74	Breech, Barrel & Tube Ass'y.	16.88	140-31	Pump Lever	.60
108-75	Breech Bolt Lock Ass'y.	.60	107-6	Breech Bolt	.40
108-76	Front Sight Assembly	1.60	107-27	Barrel	3.54
			107-74	Breech Barrel, Tube Ass'y	16.88

FRONT SIGHT, BREECH BOLT & HAMMER ASS'Y FOR PUMP RIFLE

PAGE 3.1



**REMOVING FOREARMS FROM DAMAGED
LEVERS ON MODELS: 100, 101, 102,
104, 107, 108, 109, 110, 120, 140 & 147**

When it is necessary to replace damaged or broken levers on air rifles, the wooden forearm can be removed and reused without replacing the entire stock in the following manner.

Clamp the forearm securely, to a piece of soft pine, leather or similar material, on the side opposite the pins. Drive the pins thru to the supporting pine, leather or other material, using a 1/8" drift pin or punch. Remove the clamp and support and drive the pins back out of the forearm.

Caution: Support must be clamped very tight to forearm to prevent chipping of wood when pins are punched thru.

Pump rifles produced after March 12, 1956 will have forearms drilled deep enough to show spots on forearms on opposite side of pins.

On these rifles a support is not necessary when driving the pins out.

NOTE: Drive the pins out from the spot side.

1. Remove Knurled Locating Screw Nut from under stock.
Remove Stock.

2. Clamp Tube in protected Vise Jaws. Do not put strain on Breech, breech side down.
Remove Spring Stop Screws (110-31).
Remove Spring Stop Bottom Screw (110-12).
Remove Hammer Spring Stop (105-24).
Remove Hammer Spring Guide (110-29).
Remove Hammer Spring (110-7).
Remove Hammer (110-20).
Remove Cocking Pin (113-59).
Remove Breech Bolt (114-6).
Remove Breech Bolt Lock Assembly (110-64).

3. For removing Valve System refer to details Page 2-A, Item 5 and drawing Page 2.3

4. Drive out Front Sight Pin (110-15).
Remove Front Sight (105-26)
Remove Pump Assembly (140-74).
Refer to Drawing Page 3.1.

VALVE SYSTEM FOR AIR RIFLES ----- REFER TO DRAWINGS PAGE 2.3 AND DETAILS ON PAGE 2-A.

PUMP & LEVER ASSEMBLY ----- REFER ..TO DRAWINGS PAGE 1.3 AND PAGE 1-F FOR MAL-
FUNCTIONS AND CORRECTIVE MEASURES.

CROSMAN PARTS LIST

PAGE 3.B

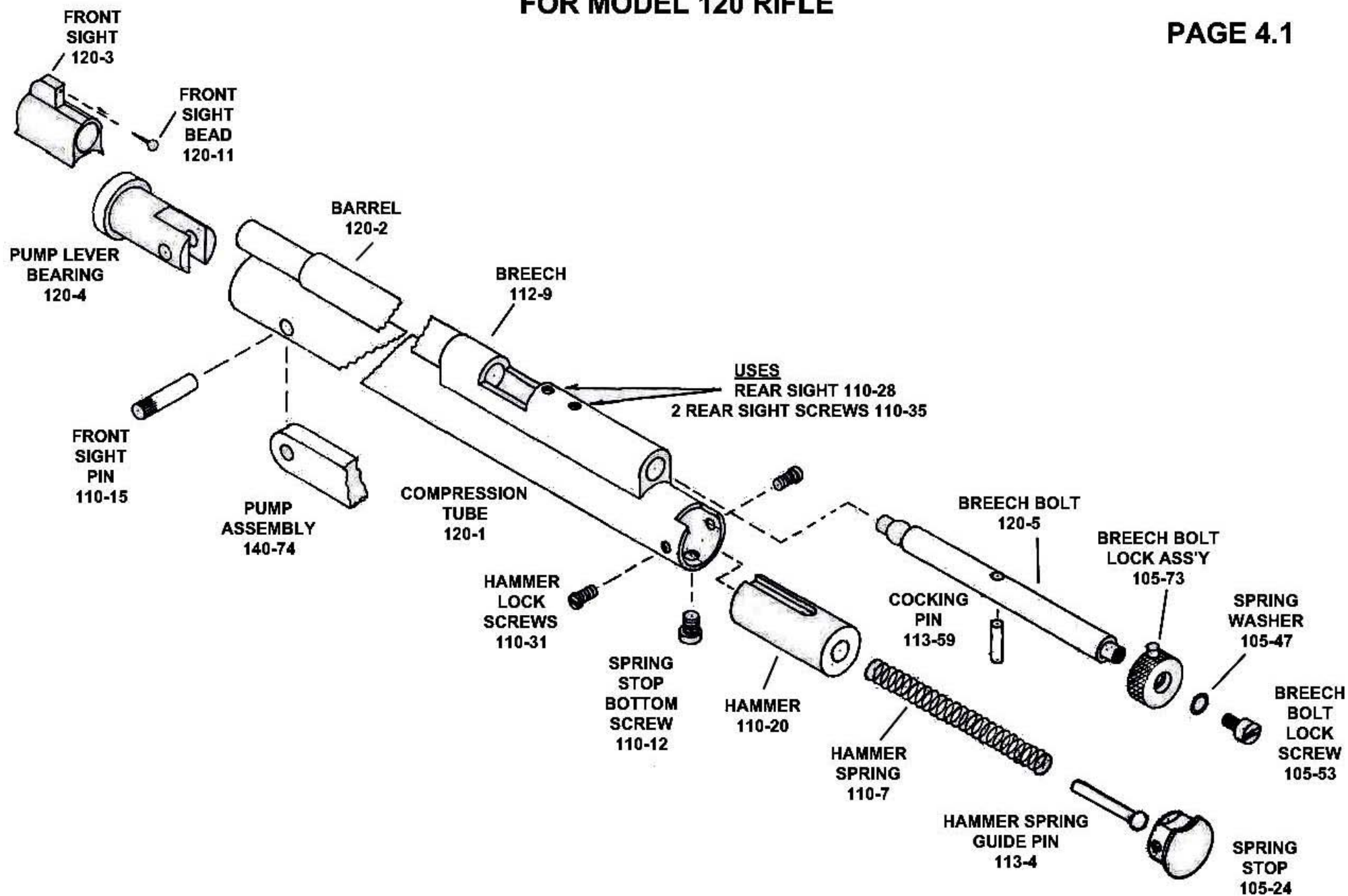
MODEL 109 - .177 Cal. Air Rifle

MODEL 110 - .22 Cal. Air Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>		<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
110-2	Barrel	3.54		105-58	Rear Sight Elevating Screw	.50	Doz.
110-3	Stock	6.80		108-14	Locating Screw Nut	.25	
110-7	Hammer Spring	.18		108-25	Trigger Spring	.20	
110-11	Trigger Pin	.50	Doz.	108-31	Trigger Guard Screw	.50	Doz.
110-12	Spring Stop Bottom Screw	.50	Doz.	108-23	Trigger	.32	
110-15	Front Sight Pin	.08		108-73	Check Valve Assembly	1.00	
110-18	Valve Nut	.36		111-10	Exhaust Valve Body	.36	
110-20	Hammer	.60		113-59	Cocking Pin	.12	
110-21	Lock Pin	.50	Doz.	114-6	Breech Bolt	.40	
110-26	Front Sight	.75		140-21	Lever Link	.32	
110-28	Rear Sight	.25		140-22	Link Rivet	.16	
110-29	Hammer Spring Guide	.10		140-23	Lever Link Bushing	.12	
110-31	Hammer Stop Screw	.50	Doz.	140-31	Lever	.60	
110-35	Rear Sight Screw	.50	Doz.				
110-36	Forearm fin	.50	Doz.	109-2	Barrel	3.54	
110-57	Exhaust Valve Assembly	1.44		109-65	Breech, Barrel, & Tube Ass'y.	14.88	
110-65	Breech Barrel Tube Ass'y.	14.88		113-6	Breech Bolt	.40	
110-64	Breech Bolt Lock Ass'y.	.50					
INTERCHANGEABLE PARTS				105-26	Front Sight	.75	
101-18	Plunger Guide	.42					
101-19	Plunger Guide Lock Nut	.50	Doz.				
101-25	Plunger Rof	.24					
101-26	Compression Head	.16					
101-31	Felt Washer	.50	Doz.				
101-33	Plunger Guide Pin	.50	Doz.				
101-36	Pump Cup	.16					
101-43	Check Valve Spring	.18					
101-50	Compression Head Washer	.16					
101-58	Felt Retainer	.20					
101-63	Check & Ex. Val. Washer	.16					
105-8	Ex, Valve Nut	.36					
105-12	Ex. Valve Stem	.18					
105-24	Hammer Spring Stop	.55					
105-31	Ex. Valve Body Gasket	.10					
105-47	Spring Washer	.50	Doz.				
105-53	Breech Bolt Lock Screw	.50	Doz.				

FRONT SIGHT, BREECH BOLT AND HAMMER ASSEMBLY FOR MODEL 120 RIFLE

PAGE 4.1



DISASSEMBLY PROCEDURE FOR AIR RIFLE MODEL 120---REFER TO DRAWING PAGE 4.1

- 1. Model 120 is similar in construction to Models 109-110.
Refer to details Page 3.A**

**NOTE: Front Sight (120-3) is soldered to Tube (120-1) on this Model.
Pump Rod (120-6) must be used, it is shorter than rod on Page 1.3.**

CROSMAN PARTS LIST

PAGE 4.B

MODEL 120 - .22 Cal. Air Rifle

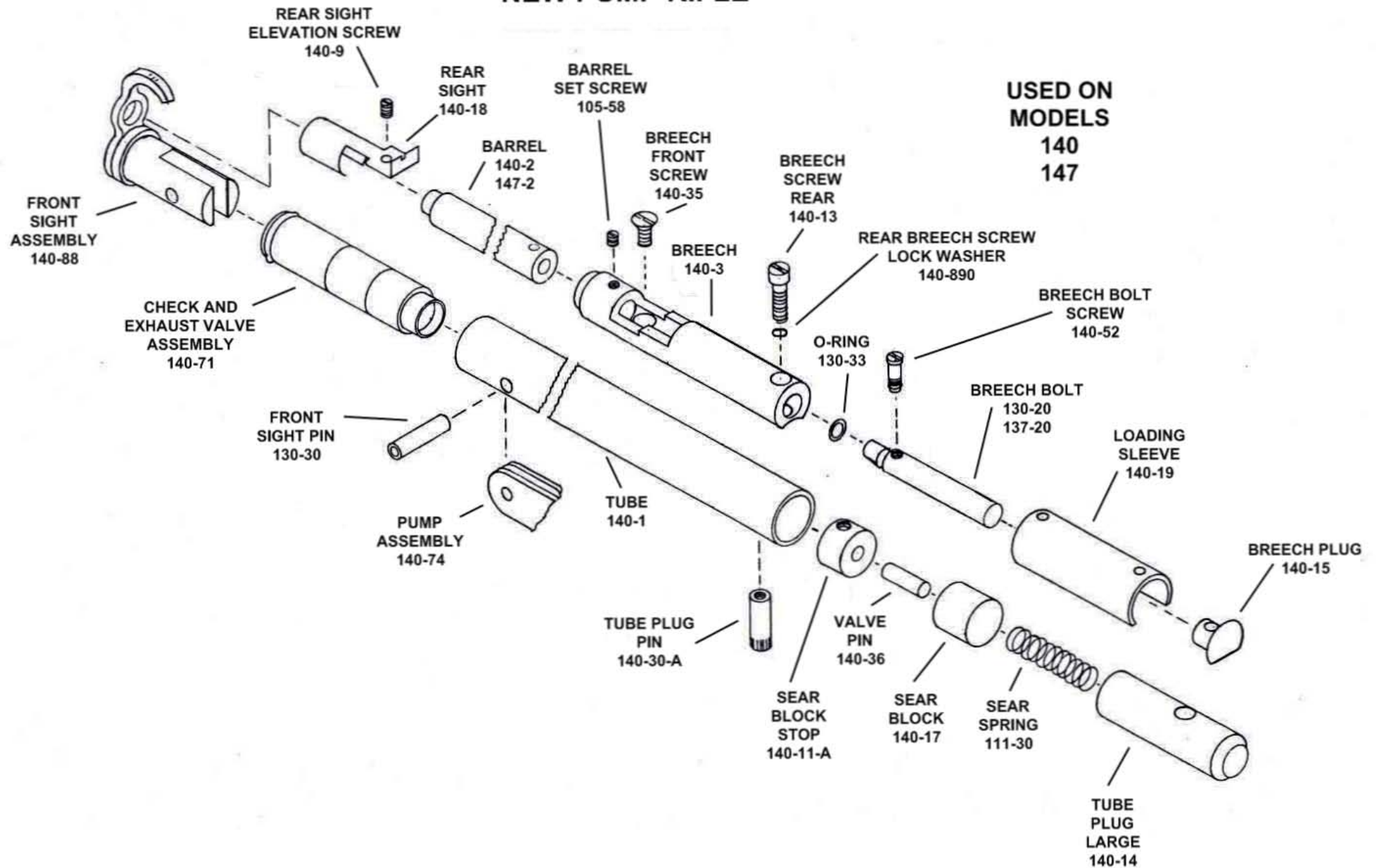
<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
120-2	Barrel	3.54	108-69	Trigger	.32
120-3	Front Sight	.28	108-25	Trigger Spring	.20
120-4	Pump Lever Bearing	.48	108-31	Trigger Guard Screw	.50 Doz.
120-5	Breech Bolt	.40	108-68	Trigger Guard Assembly	.30
120-6	Pump Rod	.24	110-7	Hammer Spring	.18
120-8	Locating Screw Nut	.25	111-10	Exhaust Body	.36
120-11	Sight Bead	.10	110-12	Hammer Stop Bottom Screw	.50 Doz.
120-36	Stock	5.20	110-11	Trigger Pin	.50 Doz.
120-SA3	Breech, Barrel, Tube & Front Sight Ass'y.	10.92	110-15	Front Sight Pin	.08
			110-18	Valve Lock Nut	.36
			110-20	Hammer	.60
			110-28	Rear Sight	.25
			110-31	Hammer Stop Screw	.50 Doz.
			110-36	Forearm Pin	.50 Doz.
			113-4	Hammer Spring Guide	.10
			113-59	Cocking Pin	.12
			140-21	Lever Link	.32
			140-22	Lever Rivet	.16
			140-23	Lever Link Bushing	.12
			140-31	Pump Lever	.60

INTERCHANGEABLE PARTS

101-18	Pump Guide	.42	
101-19	Pump Lock Nut	.50	Doz.
101-26	Compression Head	.16	
101-31	Felt Washer	.50	Doz.
101-32	Check Valve Stem	.35	
101-33	Pump Guide Pin	.50	Doz.
101-36	Pump Cup	.16	
101-43	Check Valve Spring	.18	
101-50	Compression Head Washer	.16	
101-58	Felt Retainer	.20	
101-63	Check & Ex. Valve Washer	.16	
105-8	Check & Ex. Valve Nut	.36	
105-12	Ex. Valve Stem	.18	
105-18	Bolt Lock	.20	
105-19	Bolt Lock Pin	.50	Doz.
105-24	Hammer Spring Stop	.65	
105-31	Ex. Valve Body Gasket	.10	
105-47	Spring Washer	.50	Doz.
105-53	Breech Bolt Lock Screw	.50	Doz.
105-58	Rear Sight Elev. Screw	.50	Doz.
105-66	Ex. Valve Assembly	1.44	
105-67	Check Valve Assembly	1.00	
105-73	Bolt Lock Assembly	.35	

GENERAL ASSEMBLY NEW PUMP RIFLE

PAGE 5.1



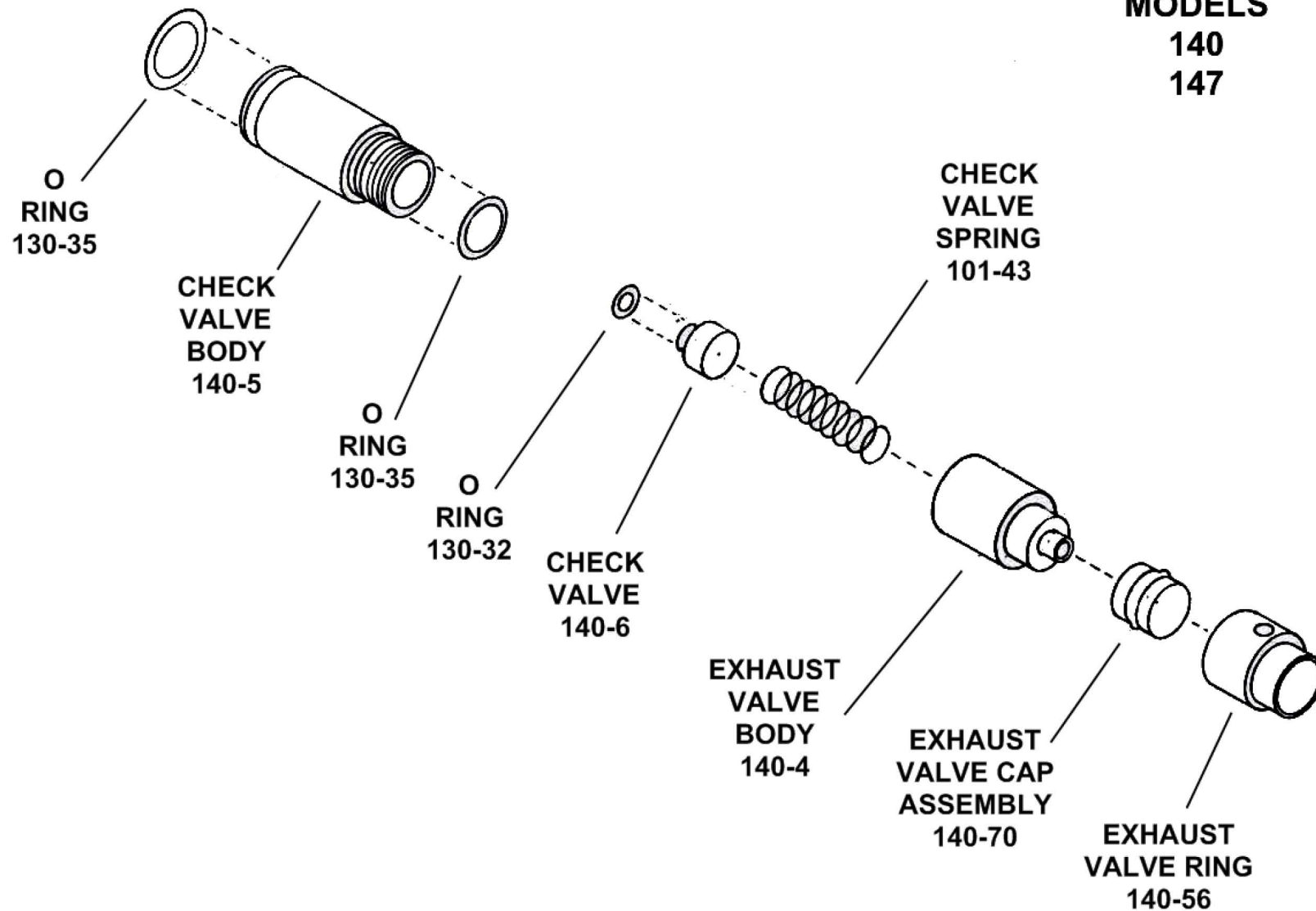
CHECK & EXHAUST VALVE ASSEMBLY FOR PUMP RIFLE

PAGE 5.2

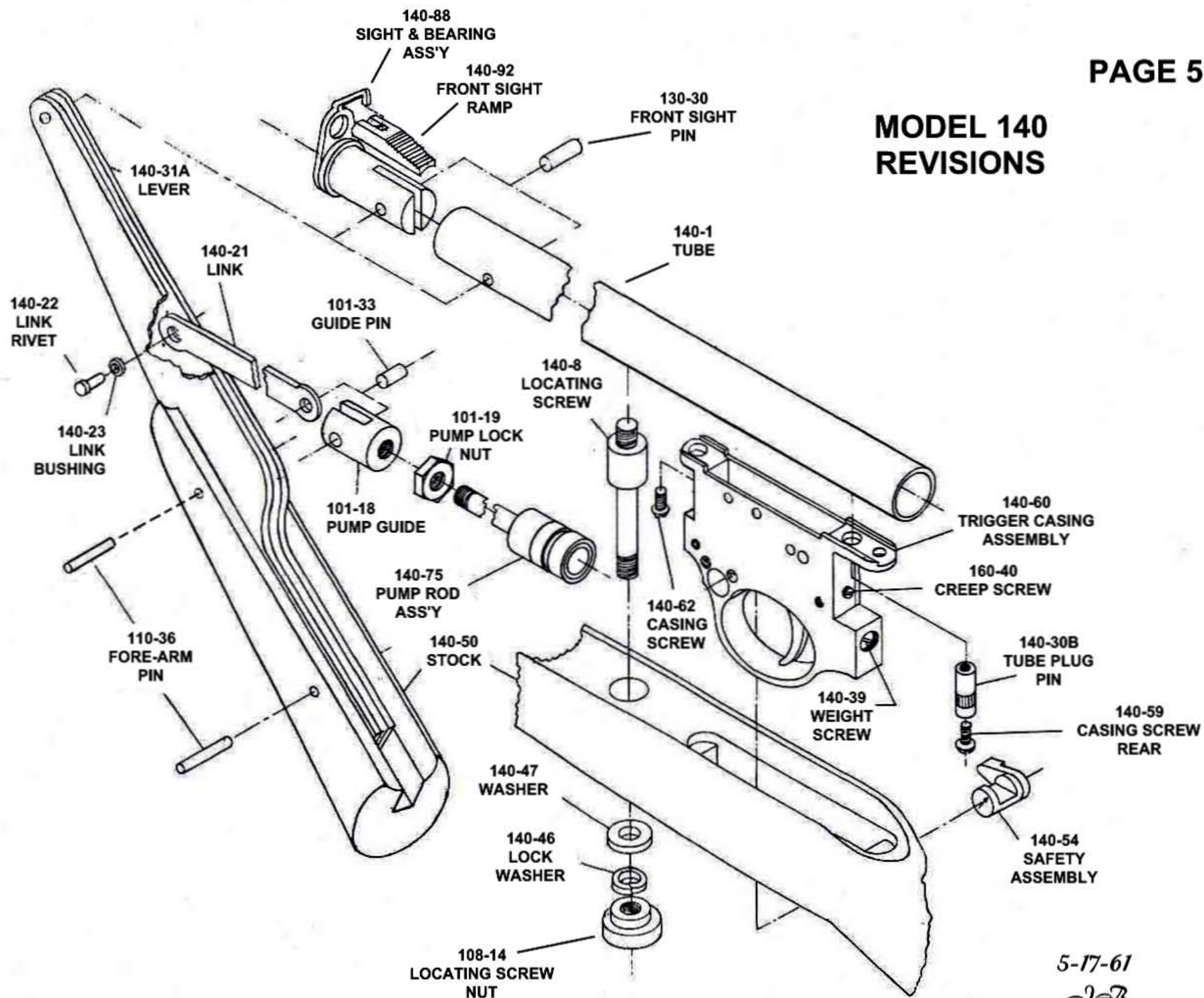
USED ON
MODELS

140

147



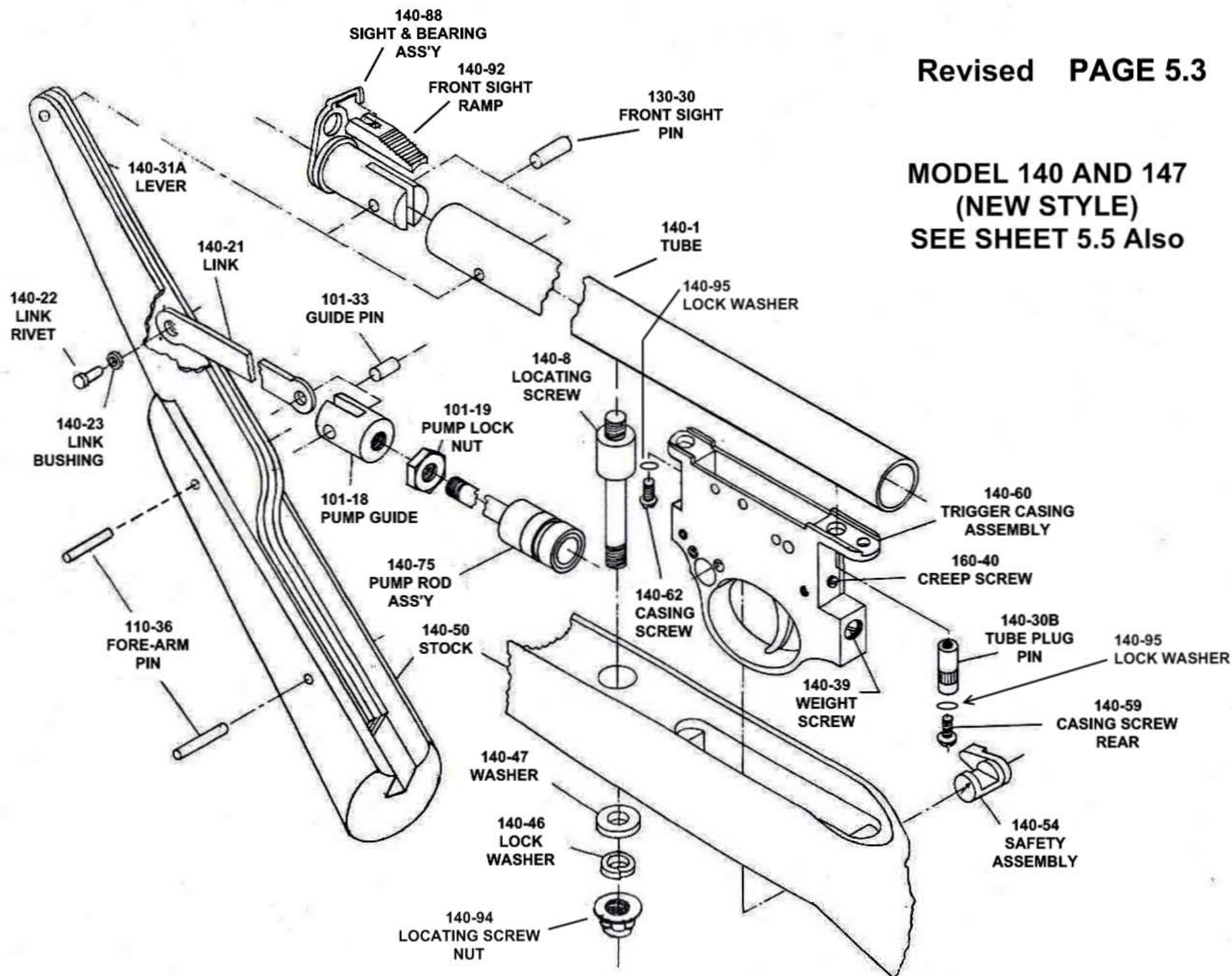
MODEL 140 REVISIONS

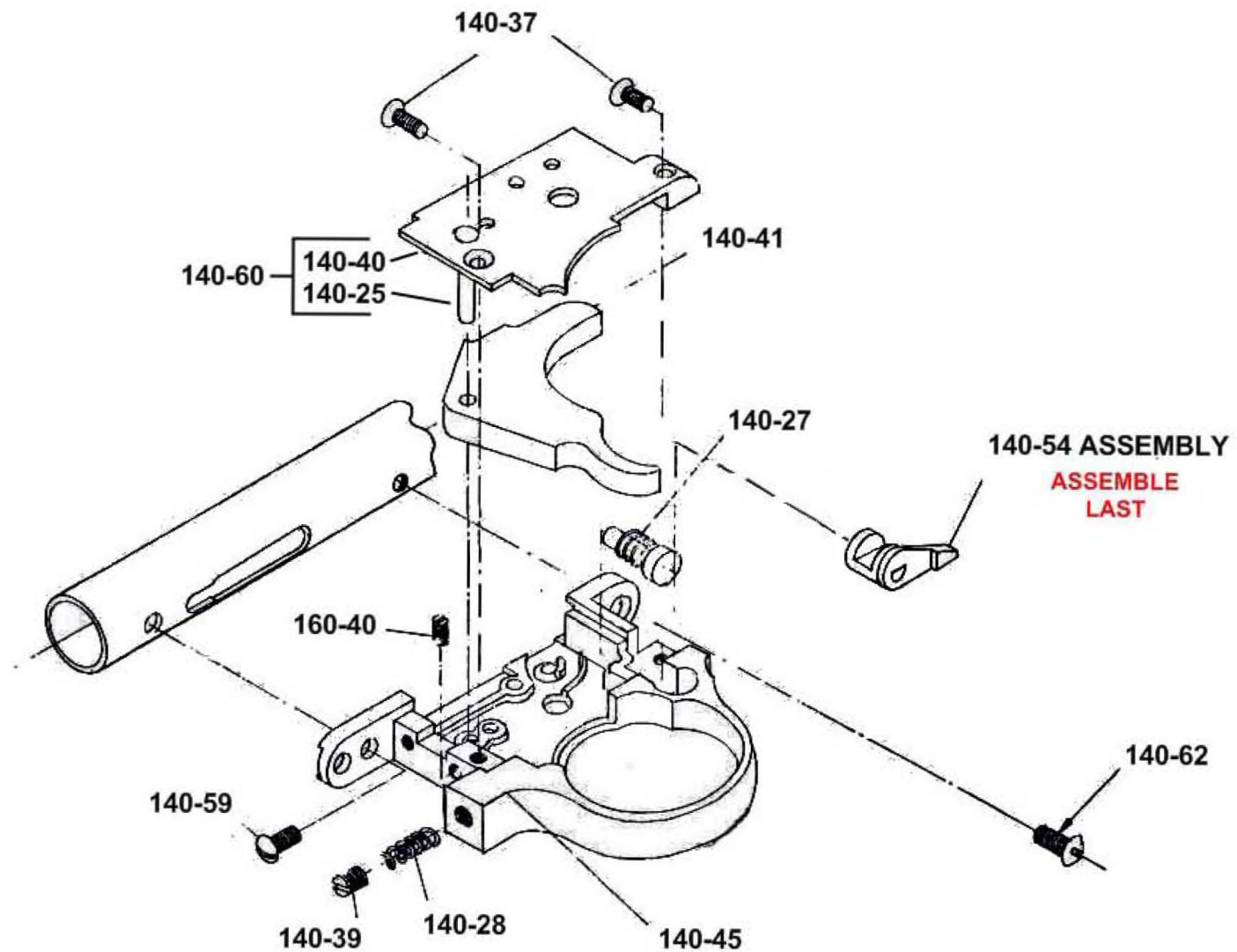


5-17-61

JB

MODEL 140 AND 147
(NEW STYLE)
SEE SHEET 5.5 Also



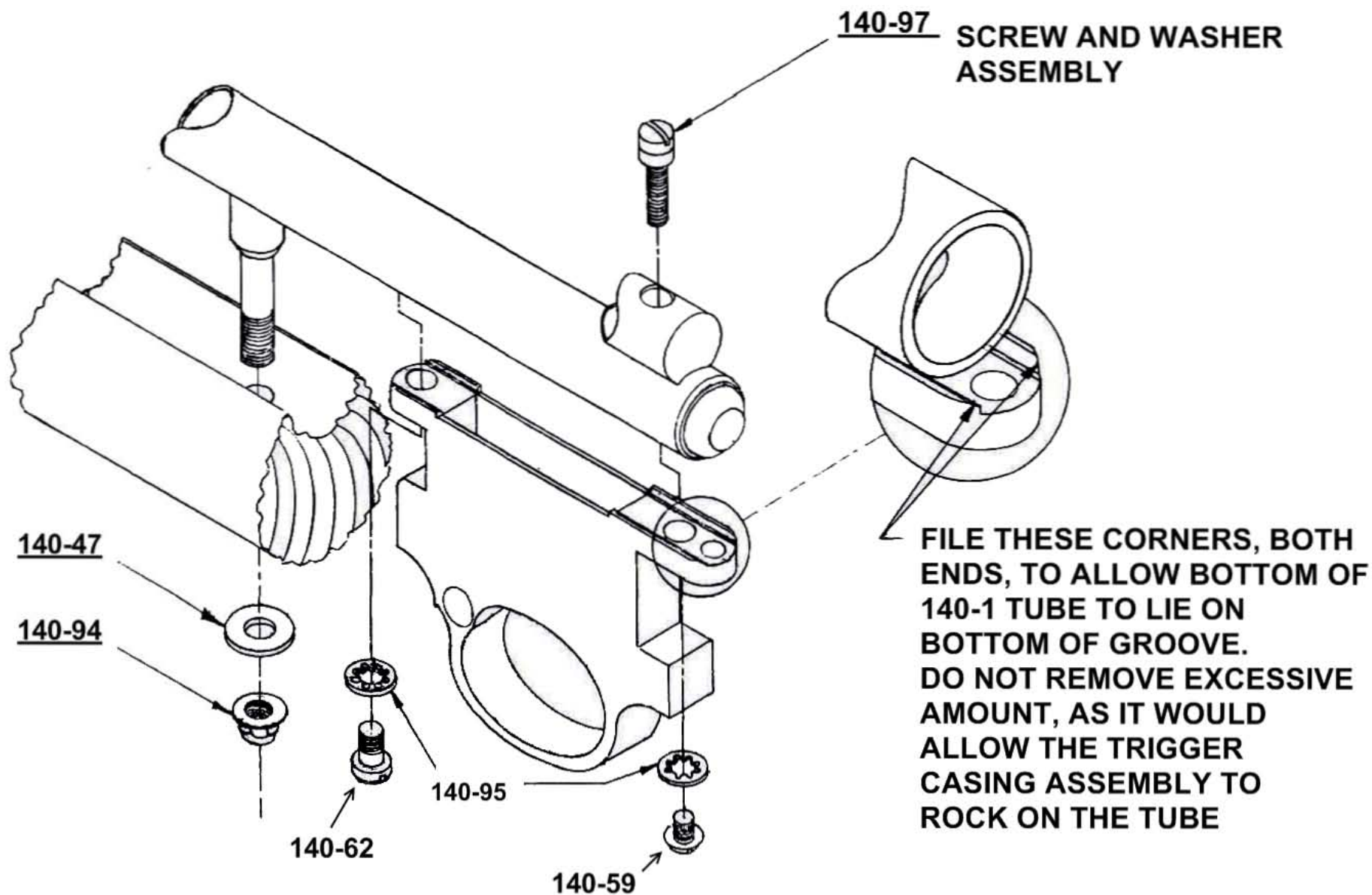


USE 140-50 STOCK

140-60 TRIGGER CASING ASSEMBLY

**REVISION PROCEDURE FOR SECURING TRIGGER
CASING ASSEMBLY TO SERIES MODEL 140** 3/11/63 JB

PAGE 5.5



DISASSEMBLY PROCEDURE FOR AIR RIFLES MODELS 140-147

REFER TO DRAWINGS PAGE 5.1, 5.2, 1.3

1. Remove Knurled Nut from bottom of Stock.
Remove Stock.
Clamp Tube (140-1) in protected jaws of vise.
2. Unscrew and remove Breech Screw Rear (140-13).
Remove Breech Plug (140-15).
3. Unscrew and remove Breech Bolt Screw (140-52).
Remove Loading Sleeve (140-19), and Breech Bolt (130-20) will slip out.
4. Drive out Tube Plug Pin (140-30A).
Remove Sear Block Stop (140-11A).
Remove Sear Spring (111-30).
Remove Sear Block (140-17).
Remove Valve Pin (140-3bA).
Remove Small Tube Plug (140-24A).
5. Unscrew and remove Breech Front Screw (150-36A)
CAUTION: Do not lose Breech Gasket (130-29),
between Breech and Tube.
6. Drive out Front Sight Pin (130-30).
Remove Front Sight Assembly (140-88).
Remove Pump Assembly (140-74).
7. Check and Exhaust Valve Assembly (140-71) can
be pushed out of Tube from the rear using a
9/16" rod.

NOTE: Early Models of 140-147 did not contain
the self cocking mechanism, shown on Page 5.1.
All units not containing this type of system
should be replaced with parts shown.

VALVE SYSTEM for Model 140-147 can be disassembled per drawing Page 5.2. If rifle leaks air replace damaged "O" rings and seals. Parts must be thoroughly cleaned before re-assembling.

LEVER AND PUMP ASSEMBLY ARE SHOWN IN DRAWING PAGE 1.3. Malfunction and Corrective Measures are found in detail Page 1-C.

TRIGGER AND SAFETY MECHANISM ARE SHOWN IN DRAWING PAGE 6.2. Rifle may fire on safe if knurled nut on bottom of stock is not tight.

DISASSEMBLY PROCEDURE FOR AIR RIFLES MODELS 140-147

Equipped With Trigger Casing Assembly

Refer to Drawing Pages 5.3 -5.4

- 1. Remove Safety Assembly (140-54) by turning to "SAFE" Position and pulling out of Casing, at the same time pushing on the other end of the bar.**
- 2. Remove Knurled Nut from bottom of Stock.
Remove Stock.
Clamp Tube (140-1) in protected jaws of vise.**
- 3. Remove Casing Screws (140-62 and 140-59), releasing Trigger Casing Assembly from Tube.**
- 4. Remove 2 Plate Screws (140-37).
Remove Plate Assembly (140-48).**

Adjust Weight Screw (140-39) for the desired trigger pressure and Creep Screw (160-40) for a minimum overtravel.

To reassemble Safety Assembly, assemble gun to Stock, depress Safety Rod (140-34) with screwdriver, and press Safety Assembly into place. Safety can be changed for left-handed shooters by removing the Safety Assembly and replacing with the lever on the other side.

To replace a 140-31 Lever with a 140-31A Lever, the forearm must be modified.

This is accomplished by lengthening the existing lever slot in the forearm so it extends the full length of the forearm.

For further disassembly procedures, refer to Page 5-A.

NOTE: Old style triggers cannot be replaced with the Trigger Casing Assembly (140-60) without extensive changes in the Tube and Stock.

RECENT MODIFICATIONS IN MODEL 140 and 147

- 1. The Check Valve, 140-6 and O-Ring, 130-32 assembly has been replaced by a solid Teflon Check Valve, 140-6T. When it is necessary to replace this assembly, the new Teflon Check Valve, 140-6T should be used on all models.**
- 2. A modification has been made in the method of securing the Trigger Casing Assembly to the gun. When it is necessary to repair a gun having the new Trigger Casing Assembly, all the changes as described in drawing 5.5 must be made, these changes are as follows:**
 - a. Replace 140-13 Rear Breech Screw with 140-97 Screw and Washer Assembly.**
 - b. File corners of Trigger Casing as noted on Drawing. 5.5.**
 - c. Use a 140-95 Lockwasher under the head of each casing screw. (No's 140-59 and 140-62.)**
 - d. Replace Knurled Locating Screw Nut, 108-14 with the 140-94 Locating Screw Nut. Use a 140-47 Washer under the nut. NOTE: This change must be made on all guns of this model.**
- 3. A nylon detent has been incorporated in the lever link to hold the lever in the up position. When repairing a gun having this type of lever, the pump should be set so that the plunger just touches the valve at the bottom of its stroke. There should be no resistance due to the pump rod bottoming on the end of the valve.**

MODEL 140 - 147 RIFLE

Several versions of the Model 140 and 147 have been sold and several production changes have been made in current models. This is Intended to clarify repair procedures for these models.

Early models of the 140 and 147 had the trigger and safety assemblies mounted in the stock. Refer to the following drawings when servicing guns with this type trigger and safety assembly:

- | | |
|--|--|
| 5.1 for general breakdown of tube and barrel | 5.3 for forearm, lever and pump assembly |
| 5.2 for Valve Assembly | 6.2 Trigger and Safety Assembly |
| 8.2 Trigger and Safety Assembly | |

Late model 140 and 147's use a different stock and a trigger casing assembly. Refer to the following drawings:

- | | |
|---|---|
| 5.1 for general breakdown of tube and barrel. | 5.4 Trigger Casing Assembly |
| 5.2 for Valve Assembly | 5.5 method for securing Trigger Casing Assembly |
| 5.3 for forearm, lever and pump assembly | |

RECENT MODIFICATIONS IN MODEL 140 AND 147

1. The Check Valve, 140-6 and O-Ring, 130-32 assembly has been replaced by a solid Teflon Check Valve, 140-6T. When it is necessary to replace this assembly, the new Teflon Check Valve, 140-6T should be used on all models.
2. A modification has been made in the method of securing the Trigger Casing Assembly to the gun. When it is necessary to repair a gun having the new Trigger Casing Assembly, all the changes as described in drawing 5.5 **must** be made, these changes are as follows:
 - a. Replace 140-13 Rear Breech Screw with 140-97 Screw and Washer Assembly.
 - b. File corners of Trigger Casing as noted on Drawing. 5.5.
 - c. Use a 140-95 Lockwasher under the head of each casing screw. (No's 140-59 and 140-62)
 - d. Replace Knurled Locating Screw Nut, 108-14 with 140-94. Locating Screw Nut. Use a 140-47 Washer under the nut.

NOTE: This change must be made on all guns of this model.

3. A nylon detent has been incorporated in the lever link to hold the lever in the up position. When repairing a gun having this type lever, the pump should be set so that the plunger just touches the valve at the bottom of Its stroke. There should be no resistance to the pump rod bottoming on the end of the valve.

DISASSEMBLY PROCEDURE FOR AIR RIFLES MODELS 140-147 (REVISION)

Equipped With Trigger Casing Assembly

Refer to Drawing Pages 5.1, 5.2, 5.3, 5.4 and 5.5

- 1. Remove Safety Assembly (140-54) by turning to "SAFE" Position and pulling out of Casing, at the same time pushing on the other end of the bar.**
- 2. Remove Hex Nut from bottom of Stock.
Remove Stock.
Clamp Tube (140-1) in protected jaws of vise.**
- 3. Remove Casing Screws (140-62 and 140-59), releasing Trigger Casing Assembly from Tube.**
- 4. Remove 2 Plate Screws (140-37).
Remove Plate Assembly (140-48).**

Adjust Weight Screw (140-39) for the desired trigger pressure and Creep Screw (160-40) for a minimum overtravel.

To reassemble Safety Assembly, assemble gun to Stock, depress Safety Rod (140-34) with screwdriver, and press Safety Assembly into place. Safety can be changed for left-handed shooters by removing the Safety Assembly and replacing with the lever on the other side.

To replace a 140-31 Lever with a 140-31A Lever, the forearm must be modified.

This is accomplished by lengthening the existing lever slot in the forearm so it extends the full length of the forearm.

For further disassembly procedures, refer to Page 5-A.

NOTE: Old style triggers cannot be replaced with the Trigger Casing Assembly (140-60) without extensive changes in the Tube and Stock.

CROSMAN PARTS LIST

Model 140 - .22 Cal Air Rifle

Model 147 - .177 Cal Air Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>		<u>INTERCHANGEABLE PARTS</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
140-1	PUMP TUBE	2.70		101-18	Pump Guide	.42		
140-2	Barrel	3.54		101-19	Pump Lock Nut	.50	Doz.	
140-3	Breech	1.20		101-31	Felt Washer	.50	Doz.	
140-4	Exhaust Valve Body	.42		101-33	Pump Guide Pin	.50	Doz.	
140-5	Check Valve Body	.42		101-43	Check Valve Spring	.18		
140-6T	Check Valve	.08		105-39	Safety Spring Ball	.30	Doz.	
140-8	Locating Screw	.36		105-19	Lock Pin	.50	Doz.	
140-9	Rear Sight Elevating Screw	.50	Doz.	105-40	Safety Spring	.50	Doz.	
140-11A	Sear Block Stop	.36						
140-13	Rear Breech Screw	.12		108-31	Trigger Guard Screw	.50	Doz.	
140-14	Tube Plug	.24		108-68	Trigger Guard Assembly	.30		
140-15	Breech Plug	.24		110-11	Trigger Pin	.50	Doz.	
140-16	Trigger	.32		110-36	Forearm Pin	.50	Doz.	
140-17	Sear Block	.24		111-30	Sear Spring	.18		
140-18	Rear Sight	.24		113-9	Safety Bar	.30		
140-19	Loading Sleeve	.32		113-10	Safety Click Bushing	.24		
140-20	Stock	5.20		113-11	Safety Bushing	.16		
140-21	Lever Link	.32		130-20	Breech Bolt	.32		
140-22	Lever Link Rivet	.16		130-29	Breech Gasket	.50	Doz.	
140-23	Lever Link Bushing	.12		130-30	Front Sight Pin	.08		
140-24	Small Tube Plug	.35						
140-30A	Tube Plug Pin	.08		130-33	"0" Ring	.12		
140-31	Lever	.60		130-34	"0" Ring	.12		
150-36A	Hold Down Screw	.50	Doz.	130-35	"0" Ring	.16		
140-36	Valve Pin	.50	Doz.	147 -2	Barrel	3.54		
140-44	Locating Screw Nut	.24		147-19	Loading Sleeve	.32		
140-52	Breech Bolt Screw	.08		137-20	Breech Bolt	.32		
140-55	Trigger Spring	.20		140-74	Lever and Link Ass'y	1.12		
140-56	Exhaust Valve Ring	.24						
140-58	"0" Ring	.12						
140-70	Exhaust Valve Cap Ass'y.	.64						
140-71	Ex. Valve Ass'y.	3.04						
140-75	Pump Rod. Assembly	1.12						
140-88	Front Sight Assembly	.96						
140-77	Breech. Lock Pin Assembly	1.35						

CROSMAN PARTS LIST
MODEL 140 - .22 Caliber AIR RIFLE
MODEL 147 - .177 Caliber AIR RIFLE

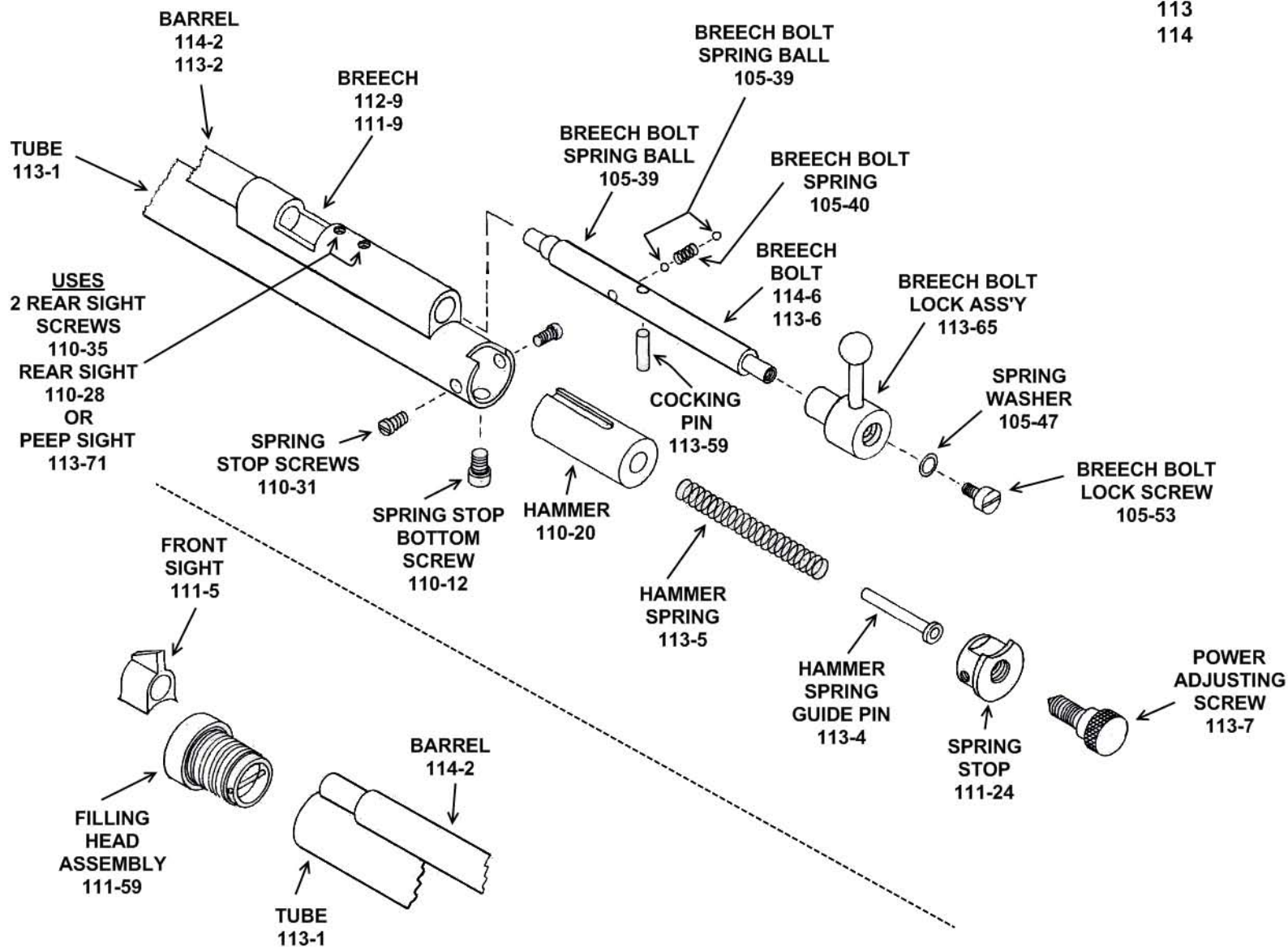
<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
140-24A	Small Tube Plug	.35	
140-27	Safety Spring	.50	Doz.
140-28	Trigger Spring	.50	Doz.
140-30B	Tube Plug	.39	
140-31A	Pin Lever	.60	
140-34	Safety Rod	.10	
140-36A	Valve Pin	.08	
140-37	Plate Screw	.14	
140-39	Weight Screw	.08	
140-41	Trigger	.50	
140-45	Trigger Casing	1.48	
140-46	Lock Washer	.50	Doz.
140-47	Washer	.50	Doz.
140-48	Plate Assembly	.52	
140-50	Stock	6.30	
140-54	Safety Assembly	.63	
140-59	Casing Screw – Rear	.50	Doz.
140-62	Casing Screw – Front	.50	Doz.
140-85	Breech Bolt	.34	
140-92	Front Sight Ramp	.22	
108-14	Locating Screw Nut	.25	
160-40	Creep Screw	.60	Doz.
140-60	Trigger Casing Assembly	3.70	
140-6T	Check Valve		
140-63	Breech Gasket Sleeve		
140-94	Locating Screw Nut		
140-95	Casing Screw Lock Washer		
140-97	Screw and Washer Assembly		

BREECH BOLT AND HAMMER ASSEMBLY FOR CO2 RIFLE

PAGE 6.1

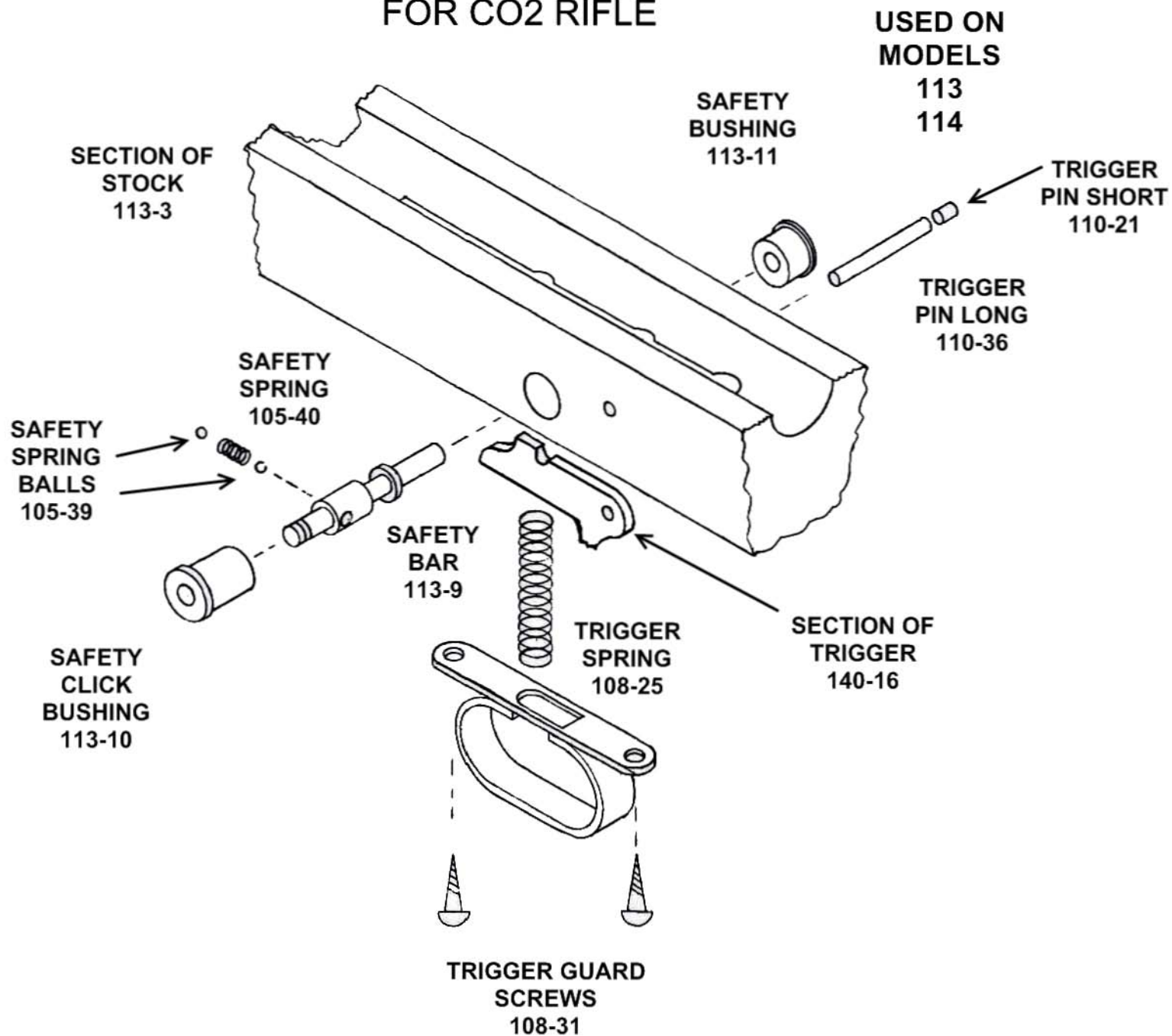
USED ON
MODELS

113
114



TRIGGER & SAFETY ASSEMBLY FOR CO2 RIFLE

PAGE 6.2



DISASSEMBLY PROCEDURE FOR CO₂ RIFLES MODELS 113-114 REFER TO DRAWINGS PAGE 6.1, 6.2, 10.1.

Follow instruction for disassembly of rear portion of rifle Page 3.A Items (1-2), and front portion, Filling Head, Item 4 Page 10-A.

EXHAUST VALVE DETAIL IS SHOWN IN DRAWING PAGE 10-4.

Remove dirt from Chamber and Valve parts before assembling.

NOTE: Exhaust Valve Nut (121-6) must be tight on Stem (105-12).

Examine metal and rubber seats for damage, replace if necessary.

Valve Nut (110-18) must be tight to prevent leak around Gasket (105-31).

Line up blind hole in Exhaust Valve Body thru bottom of Tube with Locating Pin (T-3), and hold in place while tightening Valve Nut.

FILLING HEAD DETAIL IS SHOWN IN DRAWING PAGE 10.3 INSTRUCTIONS GIVEN ON PAGE 10-A.

CROSMAN PARTS LIST

MODEL 113 - .177 Cal. CO₂ Rifle

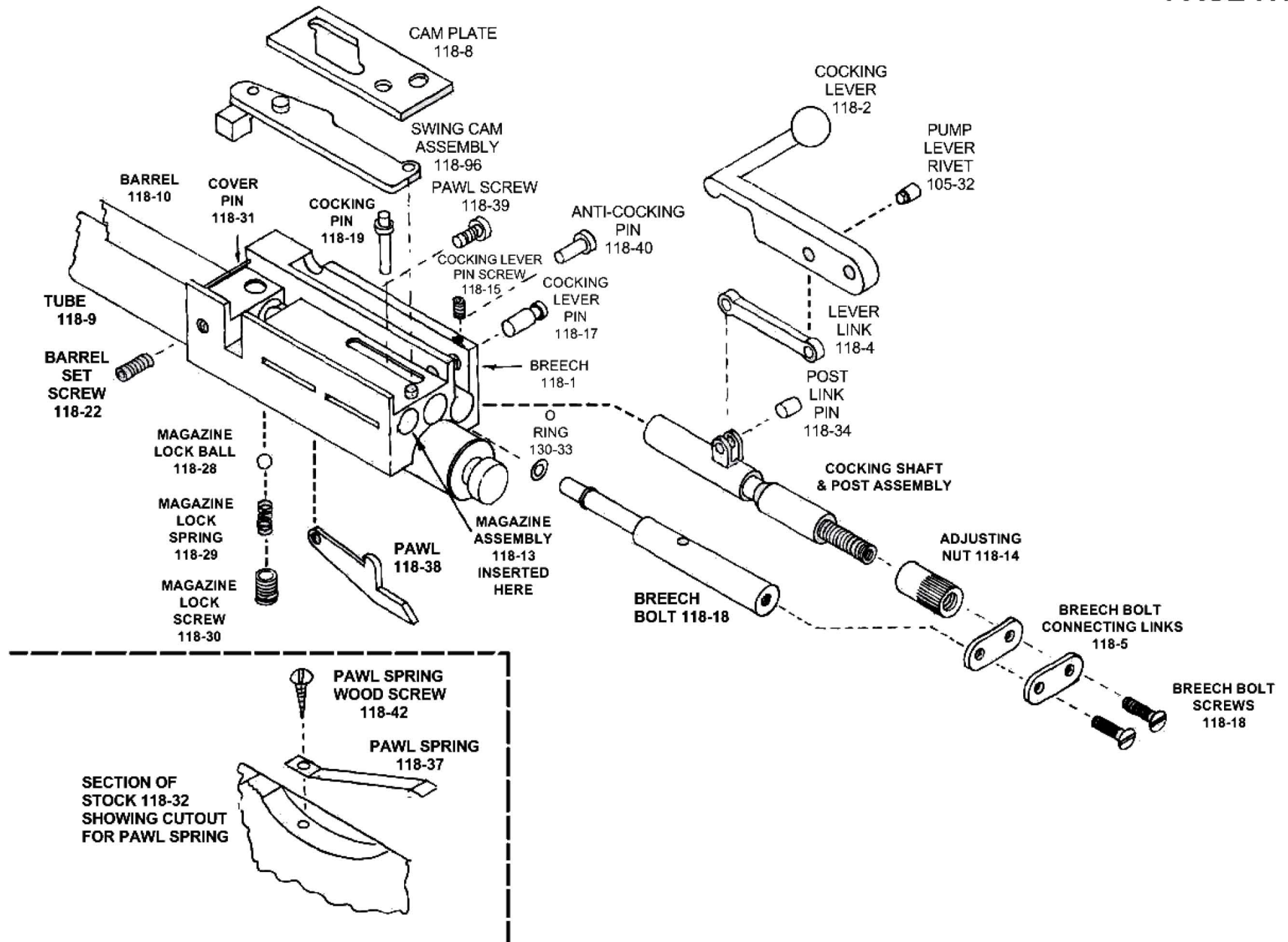
<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
113-2	Barrel	3.54
113-3	Stock	7.80
113-4	Hammer Spring Guide	.10
113-5	Hammer Spring	.18
113-6	Breech Bolt	.40
113-7	Power Adj. Screw	.28
113-9	Safety Bar	.30
113-10	Safety Click Bushing	.24
113-11	Safety Bushing	.16
113-59	Cocking Pin	.12
113-65	Breech Bolt Lock Ass'y.	.50
113-66	Breech, Barrel Sight & Tube Ass'y.	10.92
113-71	Rear Peep Sight Bracket	.16
113-72	Sight Washer	.50 Doz.
INTERCHANGEABLE PARTS		
101-2	Rear Sight Disc	.32
101-3	Rear Sight Lock Nut	.16
121-6	Exhaust Valve Nut	.36
121-7	Exhaust Valve Washer	.16
105-39	Breech Bolt & Safety Ball	.50 Doz.
105-40	Breech Bolt & Safety Spring	.50 Doz.
105-47	Spring Washer	.50 Doz.
105-53	Breech Bolt Lock Screw	.50 Doz.
105-58	Rear Sight Elev. Screw	.50 Doz.
108-14	Loc. Pin Screw Nut	.25
108-25	Trigger Spring	.20
108-31	Trigger Guard Screw	.50 Doz.
108-32	Butt Plate	.48
108-57	Butt Plate Screw	.50 Doz.
108-68	Trigger Guard Assy.	.30
108-69	Trigger	.32
110-12	Spring Stop Bottom Screw	.50 Doz.
110-18	Valve Nut	.25

MODEL 114 - .22 Cal. CO₂ Rifle

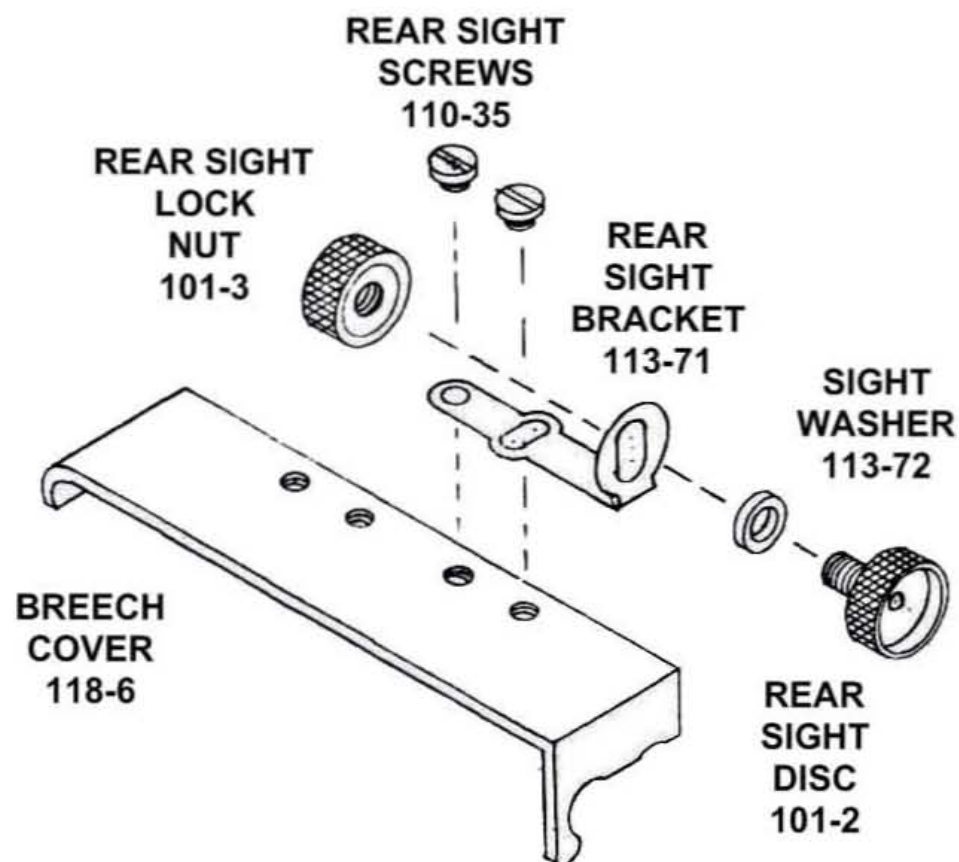
<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
110-20	Hammer	.60
110-21	Lock Pin & Dummy Tr. Pin	.50 Doz.
110-28	Rear Sight	.25
110-31	Hammer Lock Screw	.50 Doz.
110-35	Rear Sight Lock Screw	.50 Doz.
110-36	Trigger Pin	.50 Doz.
111-2A	Filling Head	1.02
111-3A	Filling Head Check Valve	.18
111-5	Front Sight	.14
111-6	Check Valve	.18
111-10	Ex. Valve Body	.36
111-24	Hammer Spring Stop	.65
111-26	Check Valve Spring	.18
111-28	Filling Head Pin	.50 Doz.
111-32	Filling Head Gasket	.10
111-41	Filling Head Check Valve Washer	.16
111-52	Filling Head Washer	.16
111-53	Filling Head Screws	.08
111-54	Ex. Valve Assembly	1.44
111-59	Filling Head Assembly	1.68
111-60	Filling Head Plug	.12
111-66	Snap Ring	.10
111-69	Filling Head Washer Retainer	.12
114-2	Barrel	3.54
114-6	Breech Bolt	.40
114-66	Breech, Barrel, Sight & Tube Assembly	10.92
111-65	Safety Check Valve Assembly	.32

BREECH BOLT & FEED ASSEMBLY FOR MODEL 118 REPEATER RIFLE

PAGE 7.1

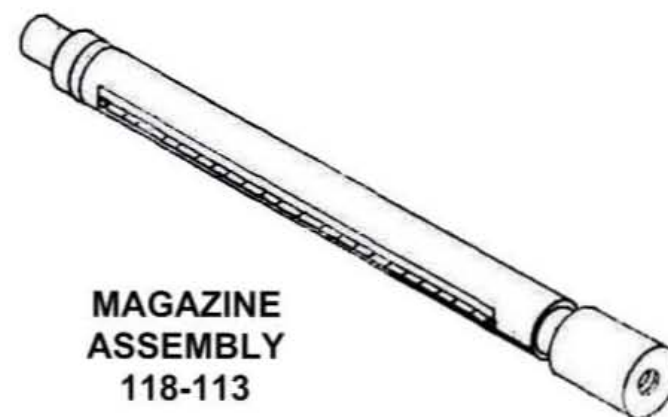


BREECH COVER & REAR SIGHT ASSEMBLY FOR MODEL 118



MAGAZINE ASSEMBLY FOR MODEL 118

PAGE 7-2



PRODUCT IRREGULARITY INTERPRETATION

Most product irregularities of the Crosman CO₂ Pellgun Rifle and Pistol have been misinterpreted as "O" Ring Leakers.

We have conducted tests in our plant of these so-called "O" Ring Leakers, and have found that in most cases this can be easily corrected by re-cocking immediately after piercing the Powerlet to allow the valve to seat and to eliminate total loss of gas. This action relieves the Hammer tension on the Exhaust Valve Stem until such a time as the internal gas pressure can build up sufficiently enough to seat the Exhaust Valve firmly.

Prior to inserting the CO₂ Powerlet into the tube, a few drops of light machine oil is recommended as good practice for internal lubrication, and to aid the "O" Rings in making an effective seal,

DISASSEMBLY PROCEDURE FOR CO₂ REPEATER RIFLE -----REFER TO DRAWINGS PAGE 7.1, 7.2

1. Valve system of this model is same as shown in drawing Page 10.1, 10.4.
Instructions for disassembly and repair are on Page 10-A.
2. Firing mechanism is same as shown in drawing Page 6.1.
Instructions for disassembly and repair are on Page 3-A.
3. Filling Head is same as shown in drawing Page 10.3.
Instructions for disassembly and repair are on Page 10-A.
4. Feeding mechanism is assembled into Breech (118-1). Pells are transferred from magazine assembly (118-113) into chamber end of Barrel (118-10) by swing cam assembly (118-96). Swing cam assembly is actuated by Cam plate (118-8) by action of cocking lever (118-2) and cocking shaft and post assembly. Free movement of these parts is necessary for correct action. Pawl (118-36) engages in notch of cocking shaft when rifle is cocked to prevent double loading of pells. Rifle cannot be cocked second time unless it is fired. Anti-cocking pin (118-40) releases pawl when rifle is fired. Breech Bolt (118-12) is sealed at chamber end of barrel with "O" ring (130-33) to prevent gas blow back. Seal adjustment is made with adjusting nut (118-14). Cover (118-6) must fit snug on cover pin (118-31) and ear at rear of cover must snap into groove on breech at magazine hold to insure proper cam action of feeding mechanism.

Front sight and Breech are silver soldered to Tube.

Barrel is sealed at air port with a rubber gasket to prevent CO₂ from escaping.

CROSMAN PARTS LIST

Page 7.B

MODEL 118 - .22 Cal. C02 Repeater Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
118-2	Cocking Lever	2.25	INTERCHANGEABLE PARTS		
118-3	Front Sight	1.30	101-2	Rear Sight Disc	.32
118-4	Lever Link	.16	101-3	Rear Sight Lock Nut	.16
118-5	Breech Bolt Conn. Link	.08	121-6	Exhaust Valve Nut	.36
118-6	Breech Cover	.30	121-7	Exhaust Valve Washer	.16
118-7	Swing Cam	.60	105-12	Valve Stem	.18
118-8	Cam Plate	.40	105-31	Ex. Valve Gasket	.10
118-10	Barrel	4.32	105-32	Lever Rivet	.50 Doz.
118-11	Hammer Spring Stop	.70	105-39	Safety Spring Ball	.30 Doz.
118-12	Breech Bolt	.60	105-40	Safety Spring	.50 Doz.
118-13	Cocking Guide Shaft	.65	105-58	Rear Sight Elev. Screw	.50 Doz.
118-14	Adjusting Nut	.32	108-14	Locating Screw Nut	.25
118-15	Cocking Lever Pin Screw	.16	108-69	Trigger	.32
118-16	Cocking Shaft Post	.55	108-25	Trigger Spring	.20
118-17	Cocking Lever Pin	.50 Doz.	108-31	Trigger Guard Screw	.50 Doz.
118-18	Breech Bolt Screw	.12	108-32	Butt Plate	.48
118-19	Cocking Pin	.12	108-57	Butt Plate Screw	.50 Doz.
118-20	Pell Pusher Block	.30	108-68	Trigger Guard Assembly	.30
118-21	Pell Pusher Block Pin	.50 Doz.	110-18	Valve Nut	.36
118-22	Barrel Set Screw	.12	110-21	Dummy Trigger Pin	.50 Doz.
118-28	Magazine Lock Ball	.10	110-28	Rear Sight Open	.25
118-29	Magazine Lock Spring	.16	110-31	Hammer Lock Screw	.50 Doz.
118-30	Magazine Lock Screw	.18	110-35	Rear Sight Screw	.50 Doz.
118-31	Cover Pin	.10	110-36	Trigger Pin	.50 Doz.
118-32	Stock	7.80	111-2A	Filling Head	1.02
118-33	Swing Cam Pin	.12	111-3A	Filling Head Check Valve	.18
118-34	Post Link Pin	.16	111-6	Check Valve	.18
118-37	Pawl Spring	.25	111-10	Ex. Valve Body	.36
118-38	Pawl	.30	111-26	Check Valve Spring	.18
118-39	Pawl Screw	.12	111-28	Filling Head Pin	.50 Doz.
118-40	Anti-cocking Pin	.16	111-32	Filling Head Gasket	.10
118-41	Hammer	.60	111-41	Filling Head Check Val. Washer	.16
118-42	Pawl Spring Screw	.10	111-52	Filling Head Washer	.16
118-95	Breech, Tube, Sight Ass'y	14.48	111-53	Filling Head Screen	.08
118-97	Cocking Shaft, Post Ass'y	1.62	111-59	Filling Head Ass'y.	1.68
118-13	Magazine Assembly	2.64			

CROSMAN PARTS LIST

Page 7.C

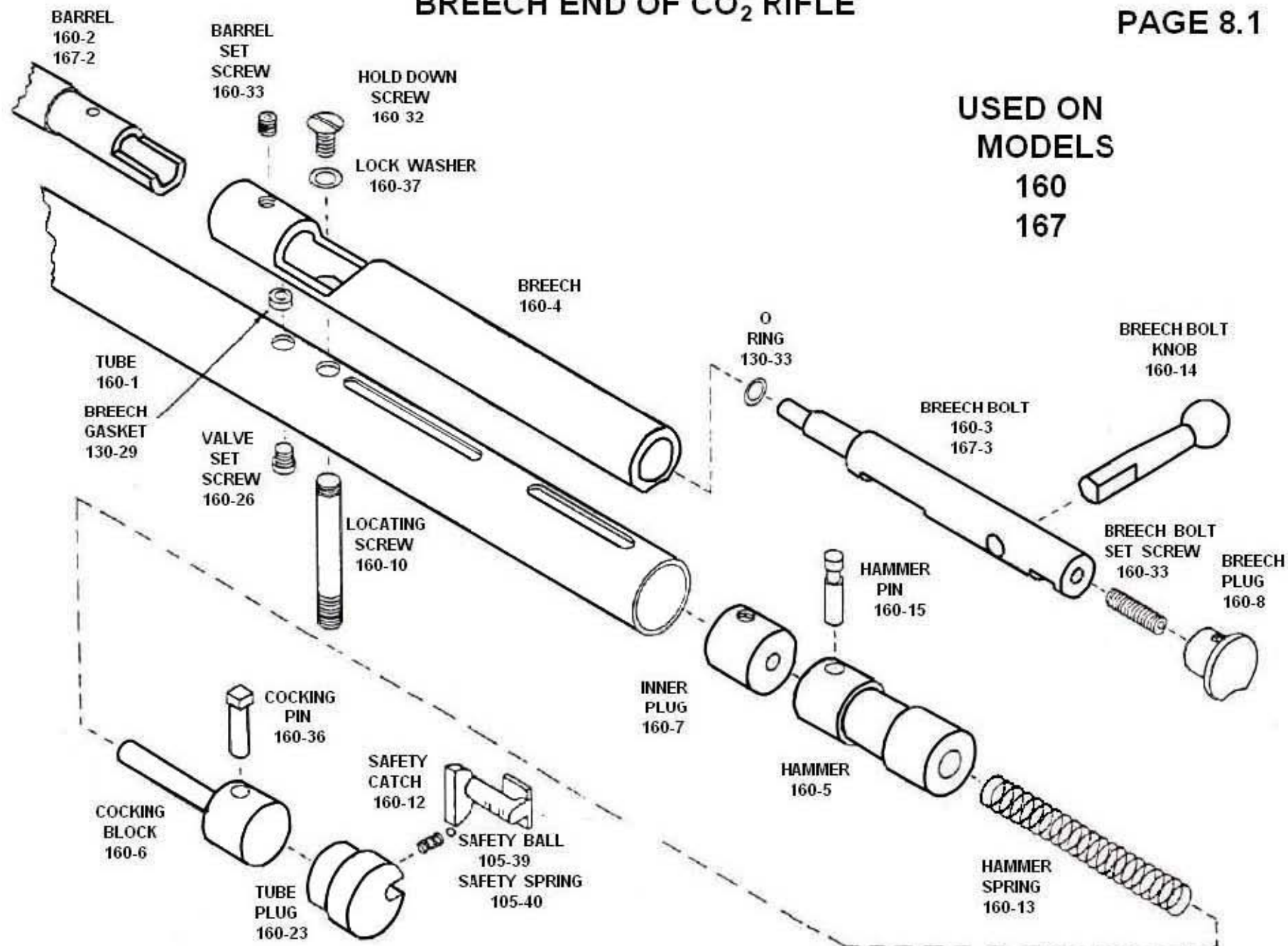
MODEL 118 - .22 Cal. C02 Repeater Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
111-60	Filling Head Plug	.12
111-65	Safety Check Valve Ass 'y.	.32
111-66	Snap Ring	.10
113-4	Hammer Spring Guide	.10
113-7	Adjusting Screw	.28
113-9	Safety Bar	.30
113-10	Safety Click Bushing	.24
113-11	Safety Bushing	.16
113-71	Rear Sight Peep Bracket	.16
113-72	Sight Washer	.50 Doz.

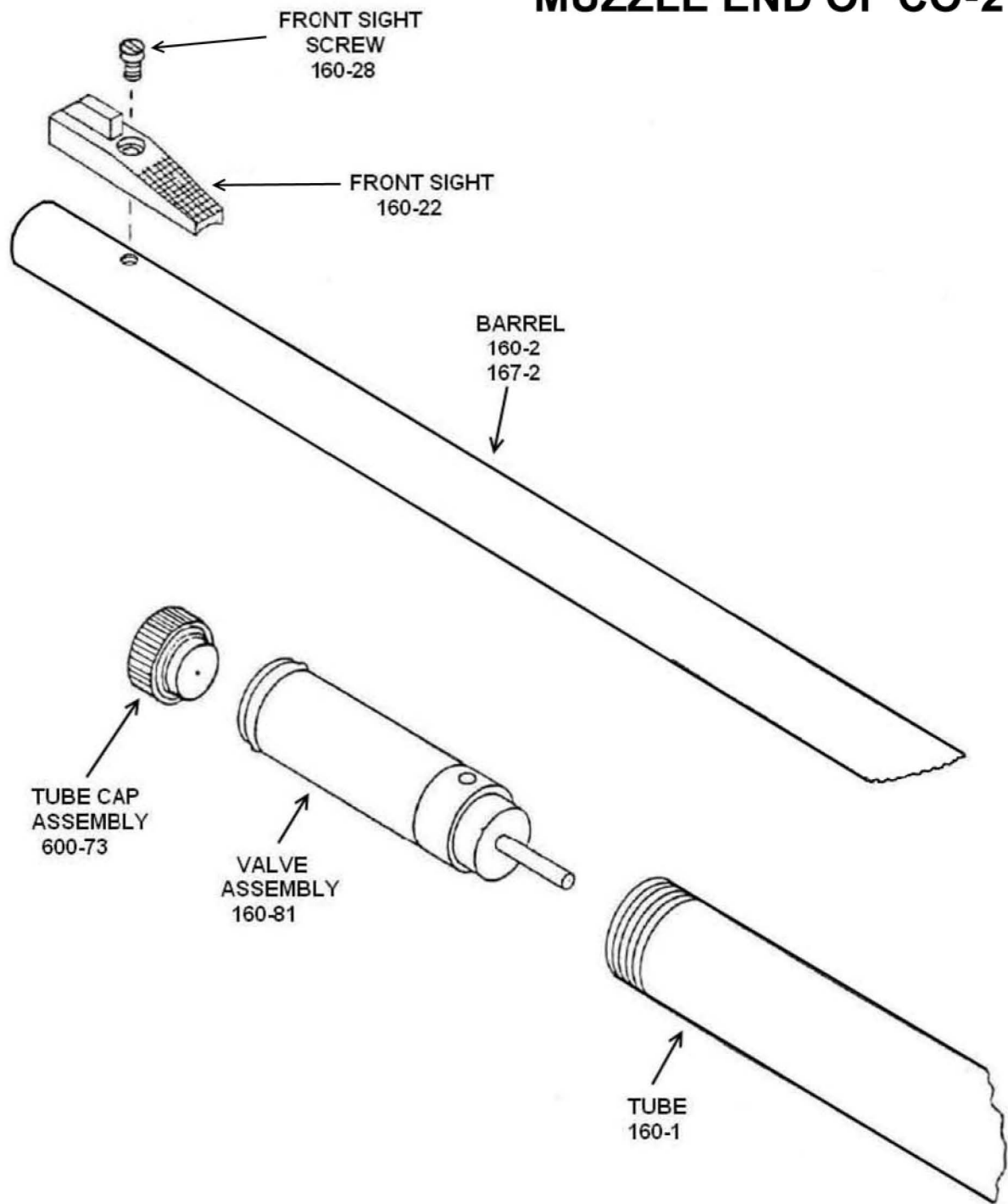
BREECH END OF CO₂ RIFLE

PAGE 8.1

USED ON
MODELS
160
167



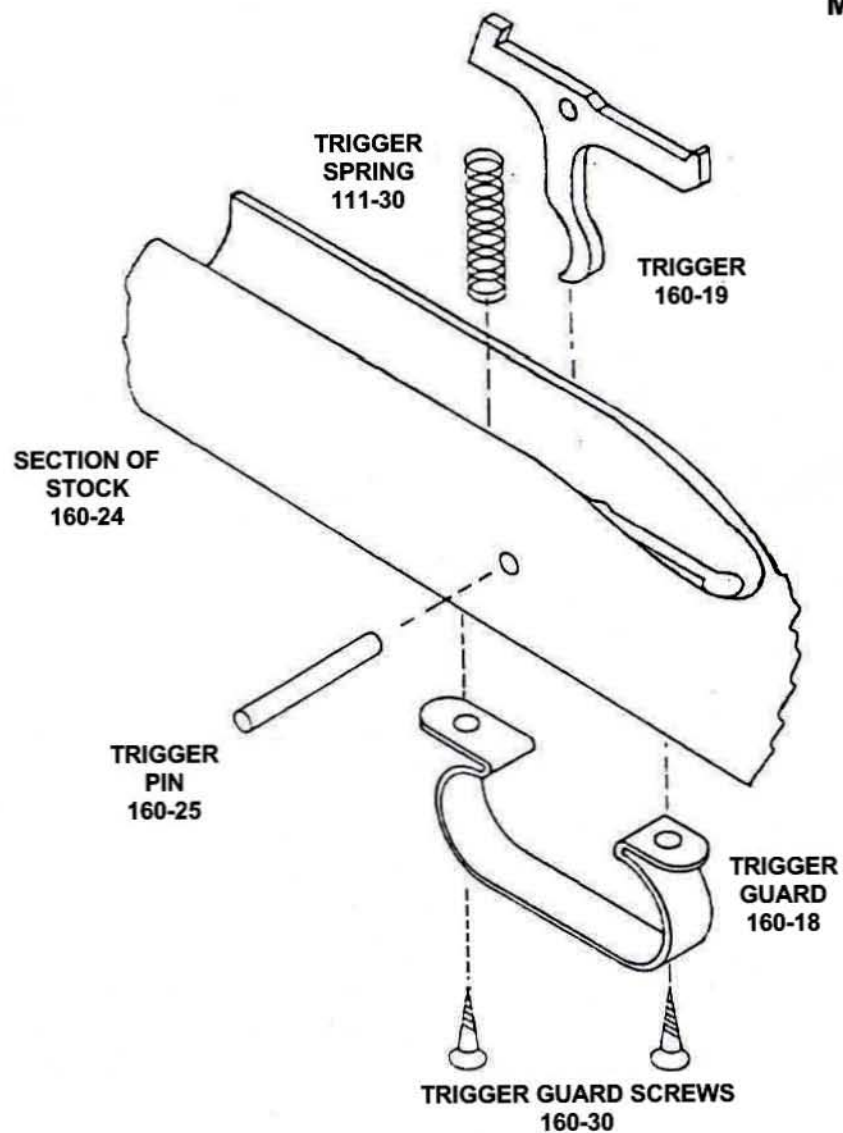
MUZZLE END OF CO-2 RIFLE



**USED ON
MODELS
160
167**

STOCK & TRIGGER ASSEMBLY

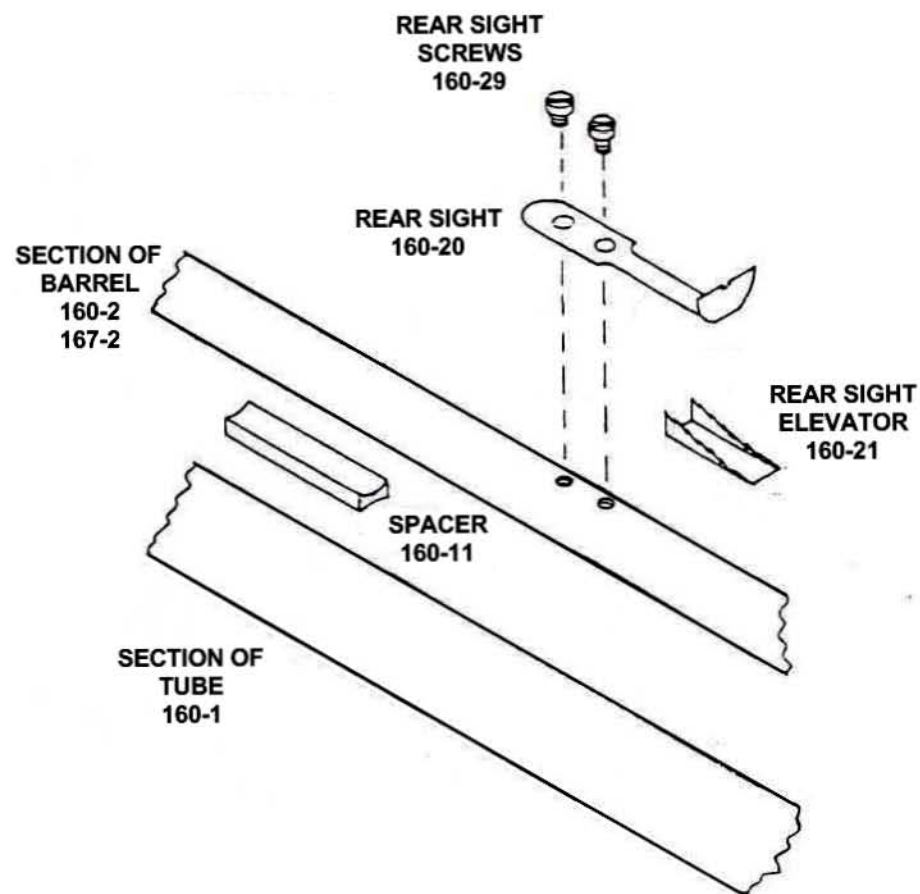
USED ON
MODELS
160
167



REAR SIGHT ASSEMBLY

PAGE 8.3

USED ON
MODELS
160
167



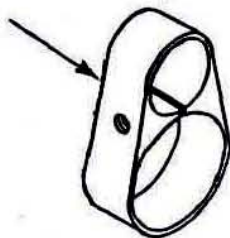
MODIFICATION ON

MODELS

160

167

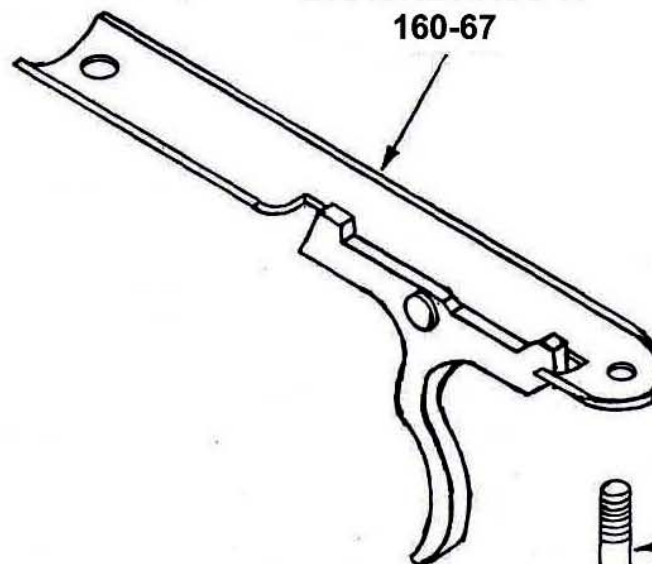
STRAP
160-11A



STRAP
SCREW
180-22



TRIGGER AND
BRACKET ASS'Y.
160-67

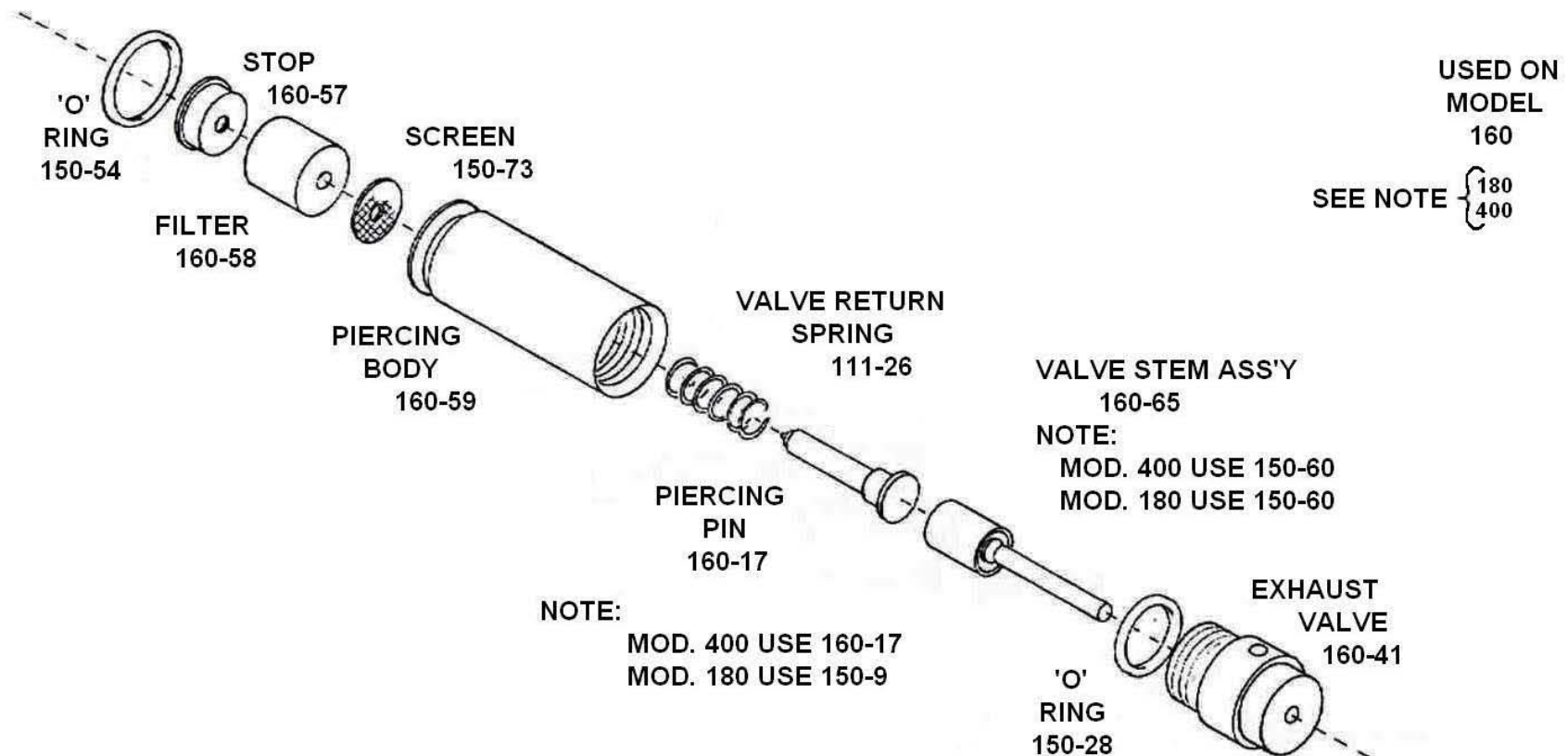


REAR
SCREW
160-9



VALVE ASS'Y FOR CO₂ RIFLE WITH FILTER

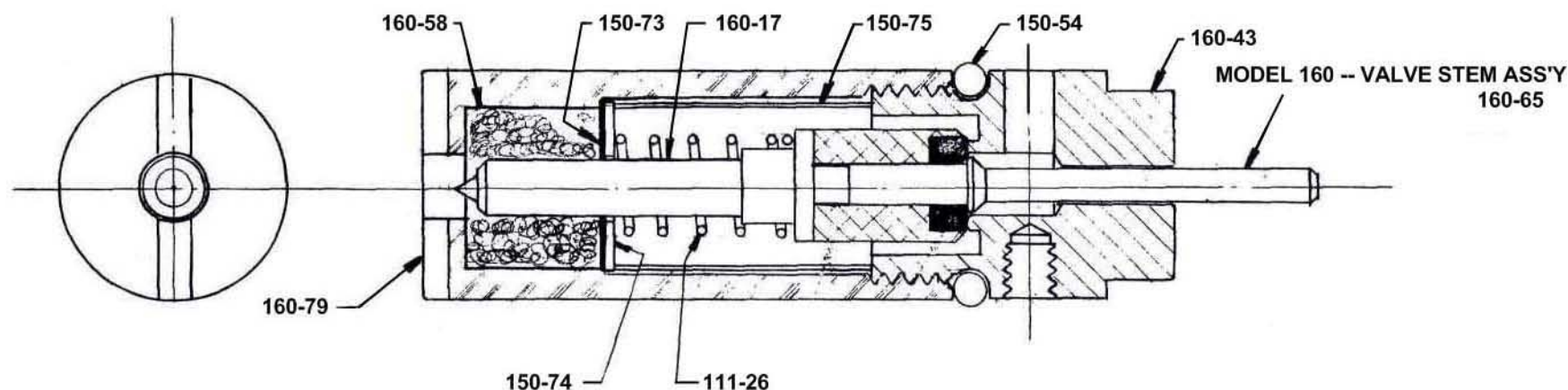
PAGE 8.5



NEW VALVE ASS'Y MODEL 160, 167 **with filter and mechanical seal**

PAGE 8.6

NOTE: Be Sure when tightening valve in tube use
 notched screwdriver – to prevent damage
 to piercing pin.



NOTE: DO NOT TIGHTEN 160-79 UNTIL AFTER 160-43
 (A) IS SCREWED TO THE TUBE

REVISIONS TO CROSMAN PARTS LIST

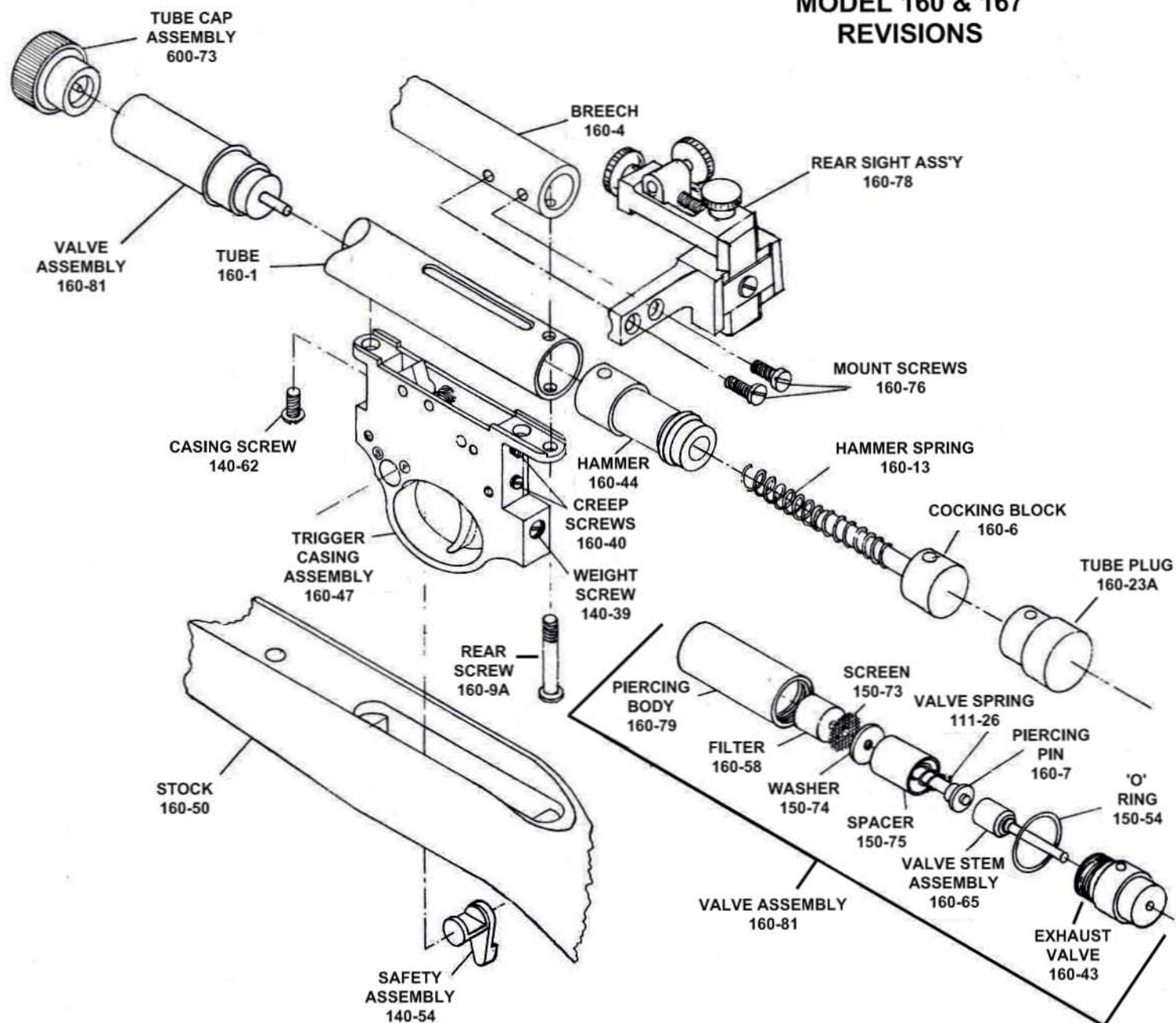
MODEL 160 - 167

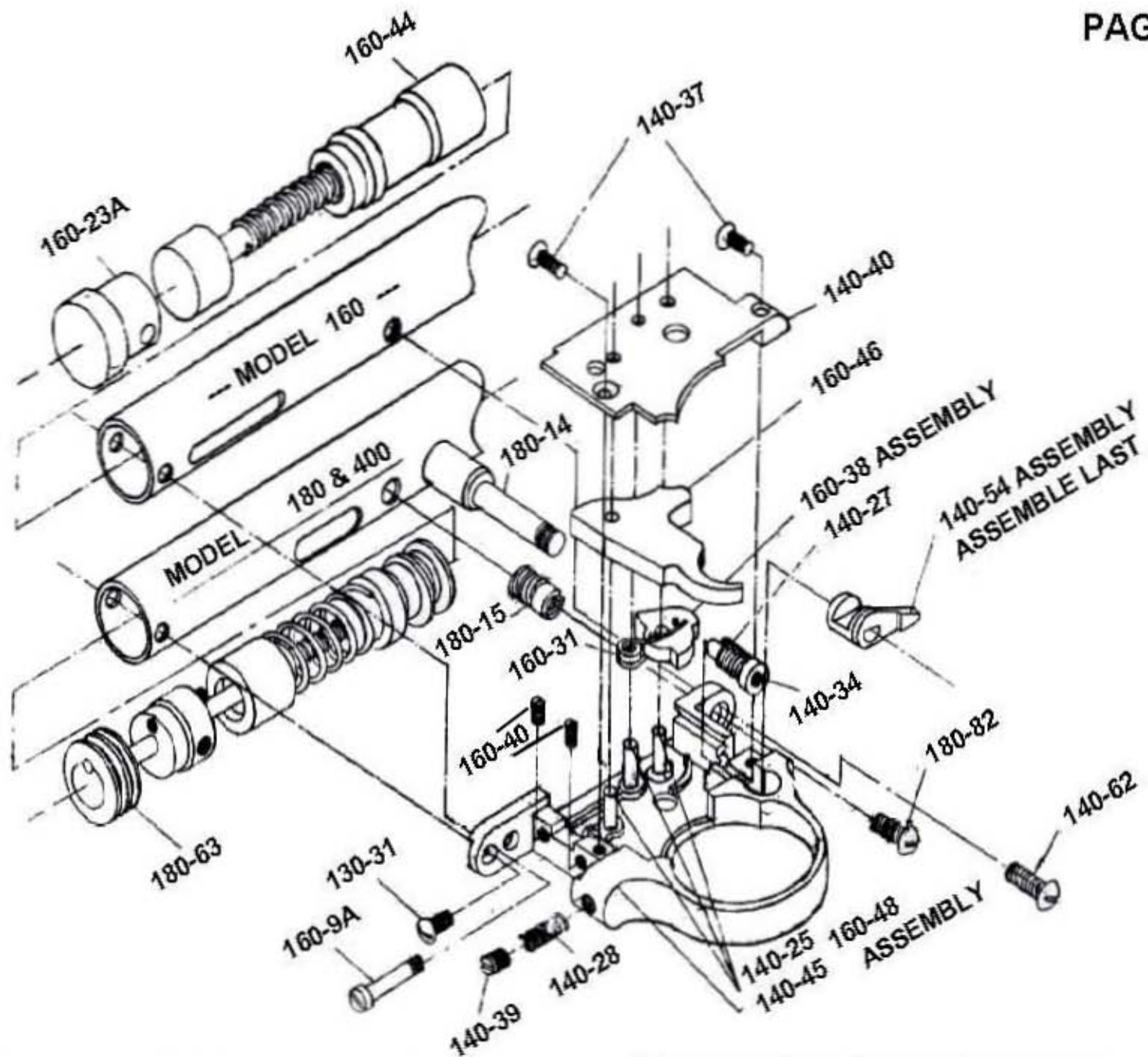
Part # 160-81 Valve Ass'y replaces 160-68
 Part # 160-79 Piercing Body replaces 160-59
 Part # 160-43 Exhaust Valve body replaces 160-41

ADDITION TO PARTS LIST

PART #	PART NAME	PRICE
160-79	Piercing Body	.72
160-43	Exhaust Valve Body	.36
160-81	Valve Ass'y	2.80

MODEL 160 & 167 REVISIONS





ON MODEL 160 USE 160-50 STOCK
 180 USE 180-50
 400 USE 400-50

160-47 TRIGGER CASING ASSEMBLY
 AND NEW ADJOINING PARTS

DISASSEMBLY PROCEDURE FOR CO₂ RIFLES--MODELS 160-167 REFER TO DRAWINGS PAGE 8.1, 8.2, 8.3

1. Remove Knurled Locating Screw Nut from bottom of Stock. Remove Stock. **NOTE:** Rifle must be fired before removing Stock to prevent damage to sear.
2. Remove screw from bottom of Tube Plug (160-23). Remove Tube Plug and Safety Catch (160-12). NOTE: Safety Ball (105-39) and Safety Spring (105-40) may fallout when assembly is removed from Tube.
3. Remove Barrel Set Screw (160-33) from Breech. Remove Hold Down Screw (160-32) and Lock Washer (160-37) and lift Breech Assembly off.
4. Remove Hammer Pin (160-15). Remove Cocking Pin (160-36). Hammer (160-5), Hammer Spring (160-13) and Cocking block (160-6) will slide out.
5. Remove Tube Cap and Piercing Rest Block Assembly from end of Tube (160-1). CAUTION: Do not remove Tube Cap (150-12) if Tube contains pressure. Tube Cap should be removed with fingers, from tube. DO NOT use wrench or pliers. CO₂ Gas can be exhausted from Tube pushing on Exhaust Valve Stem thru rear end of Tube.
6. Remove Valve Set Screw (160-26). Push Valve Assembly (160-81) out of Tube with a 1/8" rod using hole in Inner Plug (160-7) as a pilot.

REFER TO DRAWING PAGE 12.2 FOR DETAILS OF PIERCING PIN AND EXHAUST VALVE ASSEMBLY.

Inspect Exhaust Valve Gasket and metal seats for damaged surfaces, replace when necessary. Parts must be clean prior to assembling.

Piercing Rest Block "O" Ring (150-54) is a special compounded material that resists swelling under CO₂ pressure.

Barrel (160-2) must be sealed in place with permatex to prevent CO₂ leaks.

Hammer Pin (160-15) and Cocking Pin (160-36) must engage notched portion on bottom of Breech Bolt (160-3) thru slots in bottom of Breech (160-4) when assembling Breech Assembly to Tube. Make sure Breech Gasket (130-29) is in place and Hold Down Screw (160-32) is tight. Replace Lock Washer (160-3) after each use.

When mounting rifle assembly on Stock, Breech Bolt must be closed and locked and Safety Catch (160-12) forward in off position. Tube must be seated fully in Stock and Knurled Location Nut on bottom of Stock must be tight for proper operation of rifle.

MODIFICATION OF MODEL 160 – 167 CO₂ RIFLE

Black Nylon Strap, Part #160-11A, slips over Tube (160-1), and Barrel (160-2) just below threads on front of Tube. Stock is let in to take bottom section of strap. Strap Screw (180-22) holds strap in position on Barrel & Tube. This change replaces spacer (160-11) to make Barrel more rigid.

Trigger & Bracket Assembly replaces Trigger (160-19) and Trigger Pin (160-25).

Stock 1s let in to clear Bracket. Bracket is attached to Tube (160-1). Slip over Locating Screw (160-10) and attach to Tube Plug with Rear Screw (160-9). Rear Screw must be tight and Trigger must be aligned with Locating Screw before attaching Stock.

<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
160-67	Trigger & Bracket Assembly	.61
160-11A	Strap	.37
180-22	Strap Screw	.12

**DISASSEMBLY PROCEDURE FOR CO₂ RIFLES -MODELS 160 – 167
Equipped With Trigger Casing Assembly (160-47)**

Refer to Drawing Pages 8.7 -8.8

1. Remove Safety Assembly (140 -54) by turning to "SAFE" Position and pulling out of Casing at the same time pushing on other end of bar.
2. Remove Knurled Nut from bottom of Stock and remove Stock.
3. Remove Casing Screws (140-62 and 160-9A), releasing Trigger Casing Assembly (160 -47) from Tube.
4. Remove 2 Plate Screws (140-37) and Plate (140-40).

Adjust weight Screw (140-39) for the desired trigger pressure. Looking thru the hole in the side of the Trigger Casing, adjust upper Creep Screw (160-40) for the desired engagement and adjust Lower Creep Screw (160-40) for the desired overtravel. These are set at the factory at approximately 1/16" engagement and 1/32" overtravel. This should be done with Casing assembled and on gun.

To reassemble Safety, assemble gun to Stock, depress Safety Rod (140-34) with screwdriver and press Safety Assembly into place. Safety can be changed for left-handed shooters by removing the Safety Assembly and replacing with the lever on the other side.

Refer to Page 8-A for further disassembly procedure.

NOTE: Old style triggers cannot be replaced with the Trigger Casing Assembly without extensive modification of the Hammer, Tube and Stock.

CROSMAN PARTS LIST MODEL 160 .22 Cal. CO₂ Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
160-1	Tube	1.98
160-2	Barrel	6.12
160-3	Breech Bolt	.96
160-4	Breech	3.30
160-5	Hammer	.84
160-6	Cocking Block	.54
160-7	Inner Plug	.30
160-8	Breech Plug	.16
160-9	Rear Screw	.16
160-10	Locating Screw	.16
160-11	Spacer	.16
160-12	Safety Catch	.24
160-13	Hammer Spring	.15
160-14	Bolt Knob	.36
160-15	Hammer Pin	.10
160-16	Piercing Rest Block	.42
160-17	Piercing Pin	.24
160-18	Trigger Guard	.16
160-19	Trigger	.30
160-20	Rear Sight	.16
160-21	Rear Sight Elevator	.12
160-22	Front Sight	.24
160-23	Tube Plug	.60
160-24	Stock	8.28
160-25	Trigger Pin	.35 Doz.
160-26	Valve Set Screw	.50 Doz.
160-28	Front Sight Screw	.50 Doz.
160-29	Rear Sight Screw	.50 Doz.
160-30	Trigger Guard Screw	.50 Doz.
160-32	Hold Down Screw	.50 Doz.
160-33	Barrel Set Screw	.16
160-35	Breech Bolt Set Screw	.24
160-36	Cocking Pin	.08
160-37	Lock Washer	.50 Doz.
160-43	Exhaust Valve	.36
160-79	Piercing Body	.60
600-73	Tube Cap Assembly	1.97

MODEL 167 - .177 Cal. CO₂ Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
160-67	Trigger and Bracket Ass'y	1.02
160-65	Valve Stem Assembly	.84
160-81	Valve Assembly	2.80

INTERCHANGEABLE PARTS

105-39	Safety Ball	.30 Doz.
105-40	Safety Spring	.50 Doz.
108-14	Loc. Screw Nut	.25
108-32	Butt Plate	.48
108-57	Butt Plate Screw	.50 Doz.
111-26	Check Valve Spring	.18
111-30	Trigger Spring	.18
130-29	Breech Gasket	.50 Doz.
130-33	#2 "O" Ring	.12
159-7	Ex. Valve Washer	.36
150-8	Valve Nut	.16
150-12	Tube Cap	.60
150-13	Connecting Screw	.50 Doz.
150-28	#10 "O" Ring	.18
150-54	#11 "O" Ring CO2	.32
167 -2	Barrel	6.12
167-3	Breech Bolt	.96
167-4	Breech	3.30
180-67	Strap & Screw Ass'y	.51
S 331	Peep Sight	6.75

**REVISIONS TO CROSMAN PARTS LIST 5/22/59
Model 160-167**

**Part #160-59 Piercing Body replaces Part #160-42.
Part #160-68 Valve Assembly replaces Part #160-66.**

ADDITION TO PARTS LIST

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
160-57	Stop	.16
160-58	Filter	.05
160-59	Piercing Body	.12
160-68	Valve Assembly	2.80
150-73	Screen	.05

Refer to drawing Page 8.5

CROSMAN PARTS LIST

MODEL 160 - .22 caliber CO₂ RIFLEMODEL 167 -.177 caliber CO₂ RIFLE

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
160-9A	Rear Screw	.16
160-23A	Tube Plug	.81
160-31	Sear Spring	.08
160-38	Sear Assembly	.40
160-40	Creep Screw	.60 Doz.
160-44	Hammer	1.10
160-46	Trigger	.33
160-48	Casing Assembly	1.18
160-50	Stock	12.80
160-76	Mount Screw	.50 Doz.
160-78	Rear Sight including screws	7.68
600-73	Tube Cap Assembly	.97
140-62	Casing Screw –Front	.50 Doz.
140-27	Safety Spring	.50 Doz.
140-28	Trigger Spring	.50 Doz.
140-34	Safety Rod	.10
140-37	Plate Screw	.14
140-39	Weight Screw	.08
140-40	Casing Plate	.40
140-54	Safety Assernb1y	.63
160-47	Trigger Casing Ass'y	4.50

NOTICE

Modification of Breech Bolt Knob, Part No. 160-14, Sec. 8, Page 8.1

Bolt Knob should be counter sunk on spot where Breech Bolt Set Screw Part No. 160-35 tightens against it. Counter sink spot with a #12 drill .050" to .060" deep. Center of this spot should be 3/16" from end of Bolt Knob.

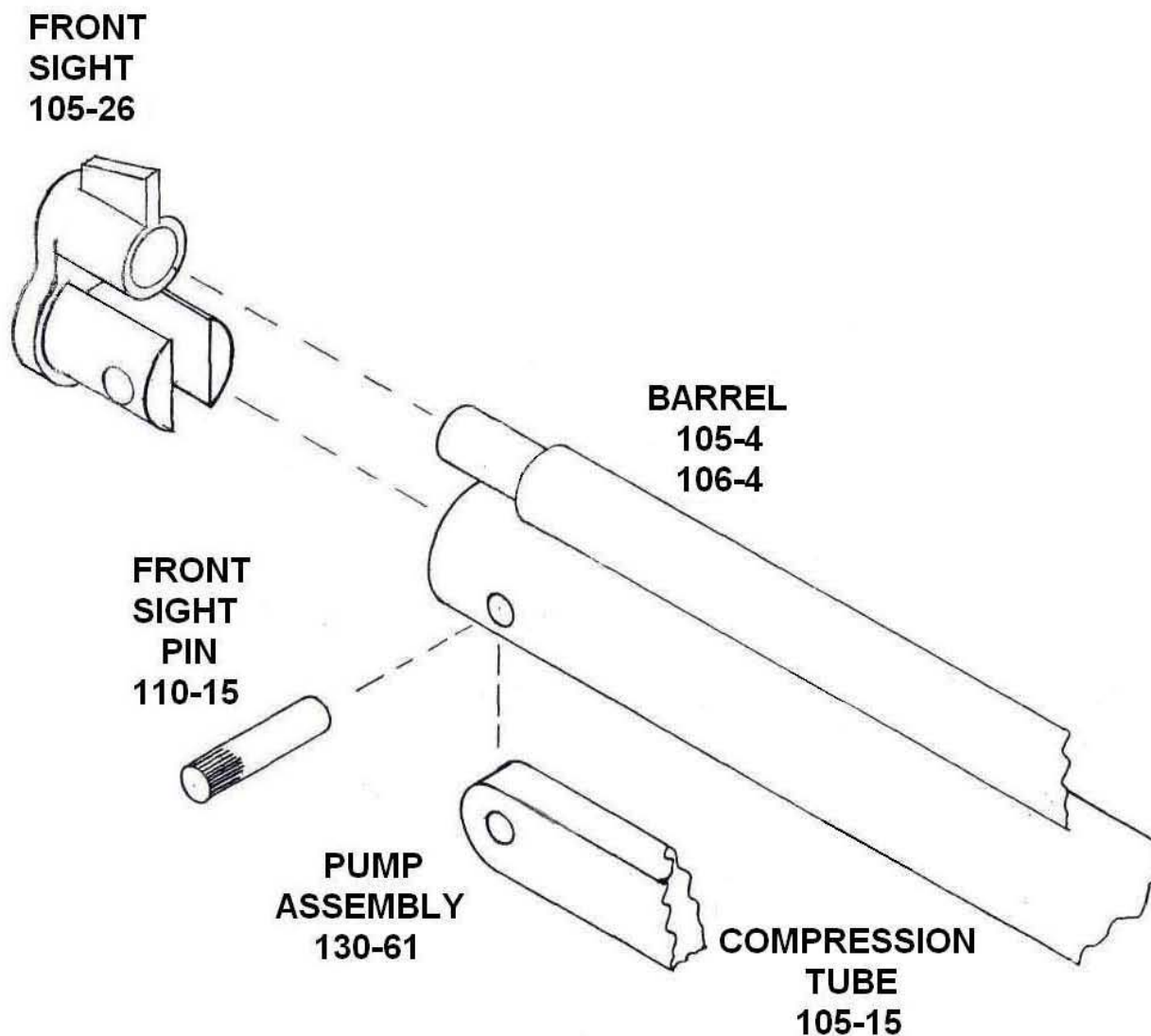
This modification was made on Rifles in production 2-1-56 at the factory.

FRONT SIGHT AND PUMP ASSEMBLY FOR EARLY PUMP PISTOLS

PAGE 9.2

USED ON
MODELS

105
106



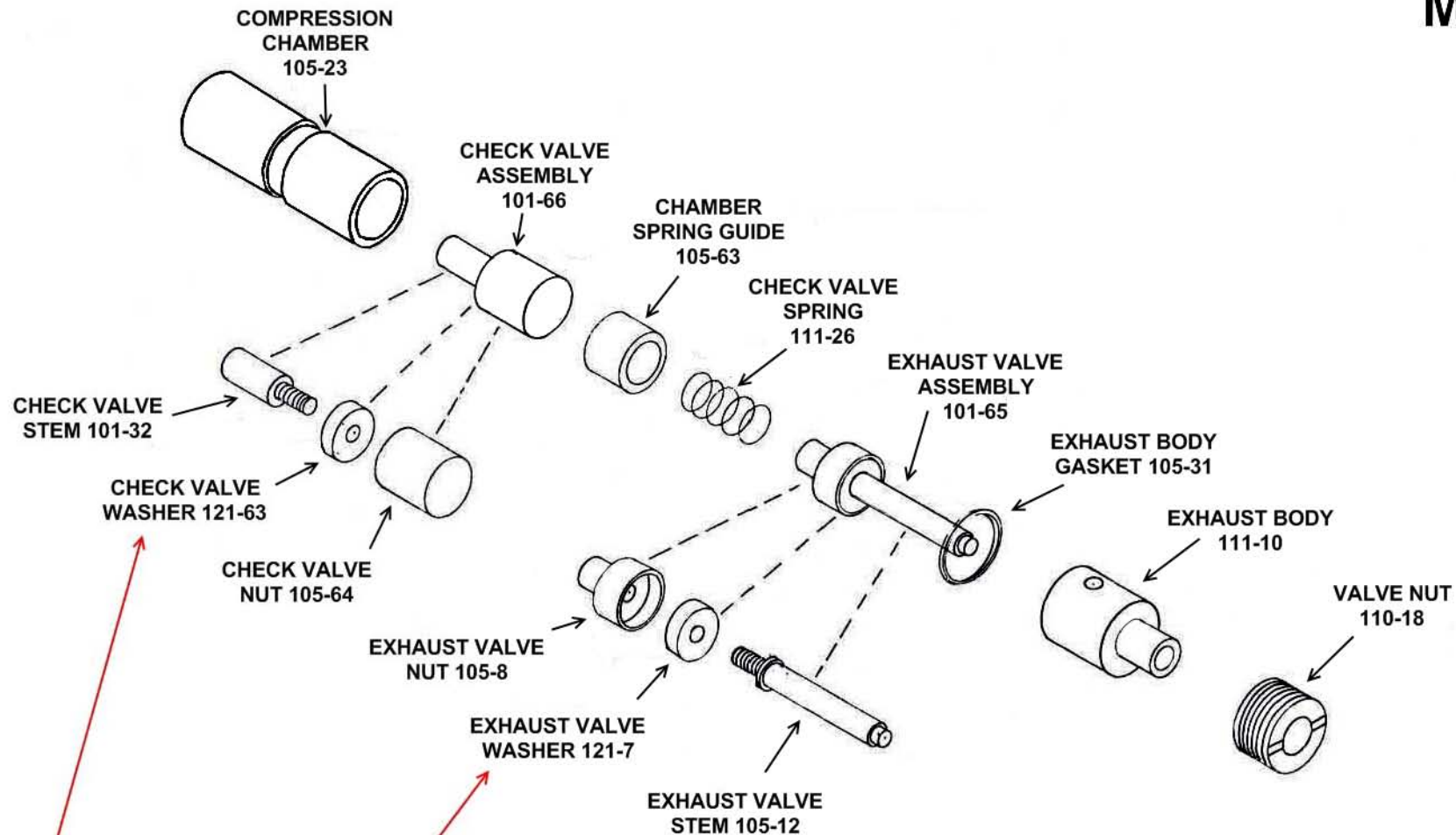
VALVE ASSEMBLY FOR PUMP PISTOL

PAGE 9.3

USED ON
MODELS

105

106

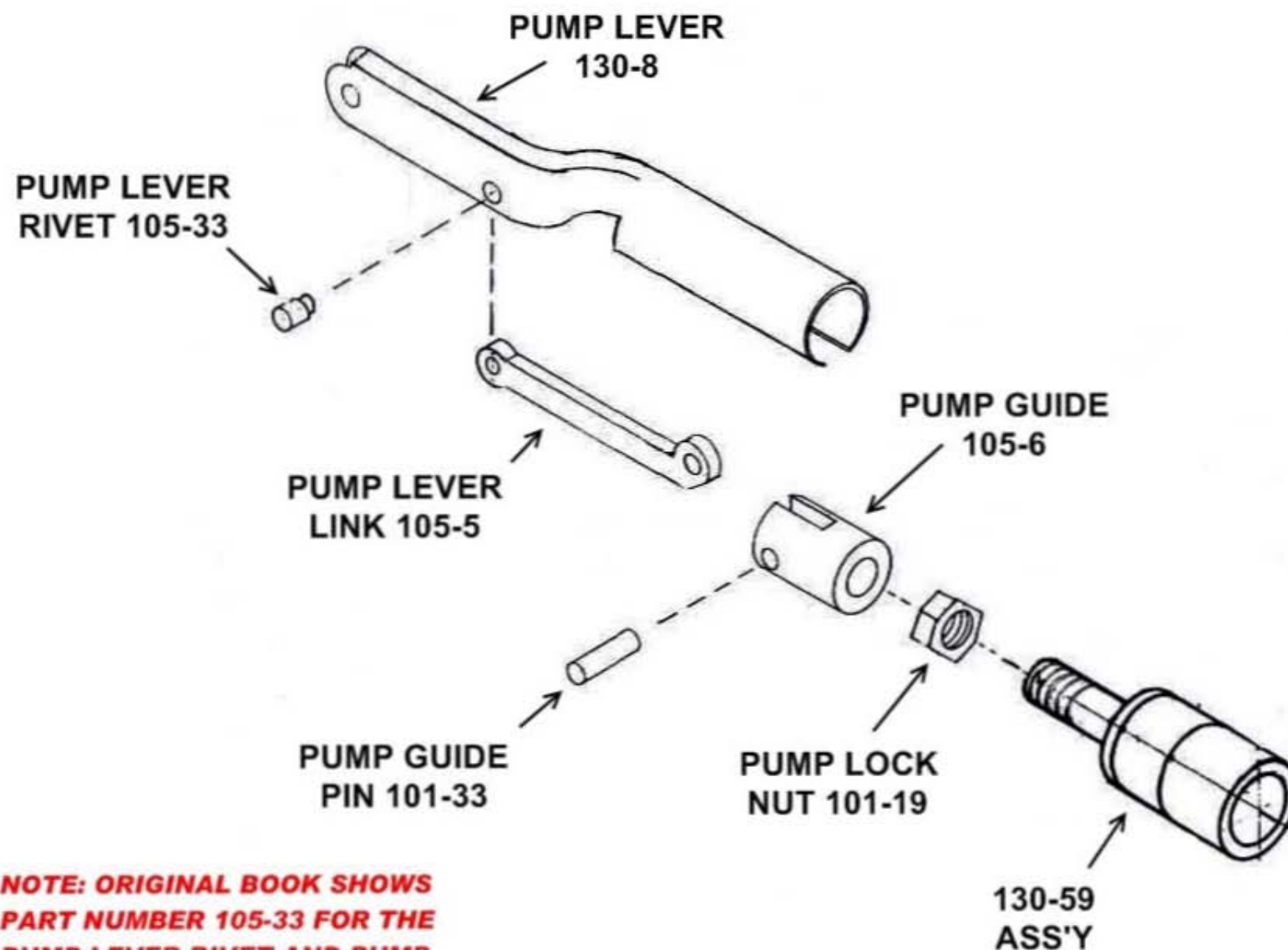


NOTE: ACCORDING TO THE PARTS LIST THE PART NUMBER FOR THE CHECK VALVE AND EXHAUST VALVE WASHER IS 121-63 HOWEVER THE ORIGINAL MANUAL DOESN'T HAVE A PART NUMBER ON THE DIAGRAM FOR THE CHECK VALVE WASHER AND SHOWS THE EXHAUST VALVE WASHER AS 121-7

NOTE: ACCORDING TO THE PART NUMBER 101-66 CHECK VALVE ASS'Y IS THE SAME THAT'S USED ON MODEL 101 AND IS ASSEMBLED FROM THE FOLLOWING PARTS
CHECK VALVE STEM 101-32
CHECK VALVE WASHER 101-37
CHECK VALVE NUT 101-35

PUMP ASSEMBLY FOR PISTOL

PAGE 9.4



USED ON
MODELS

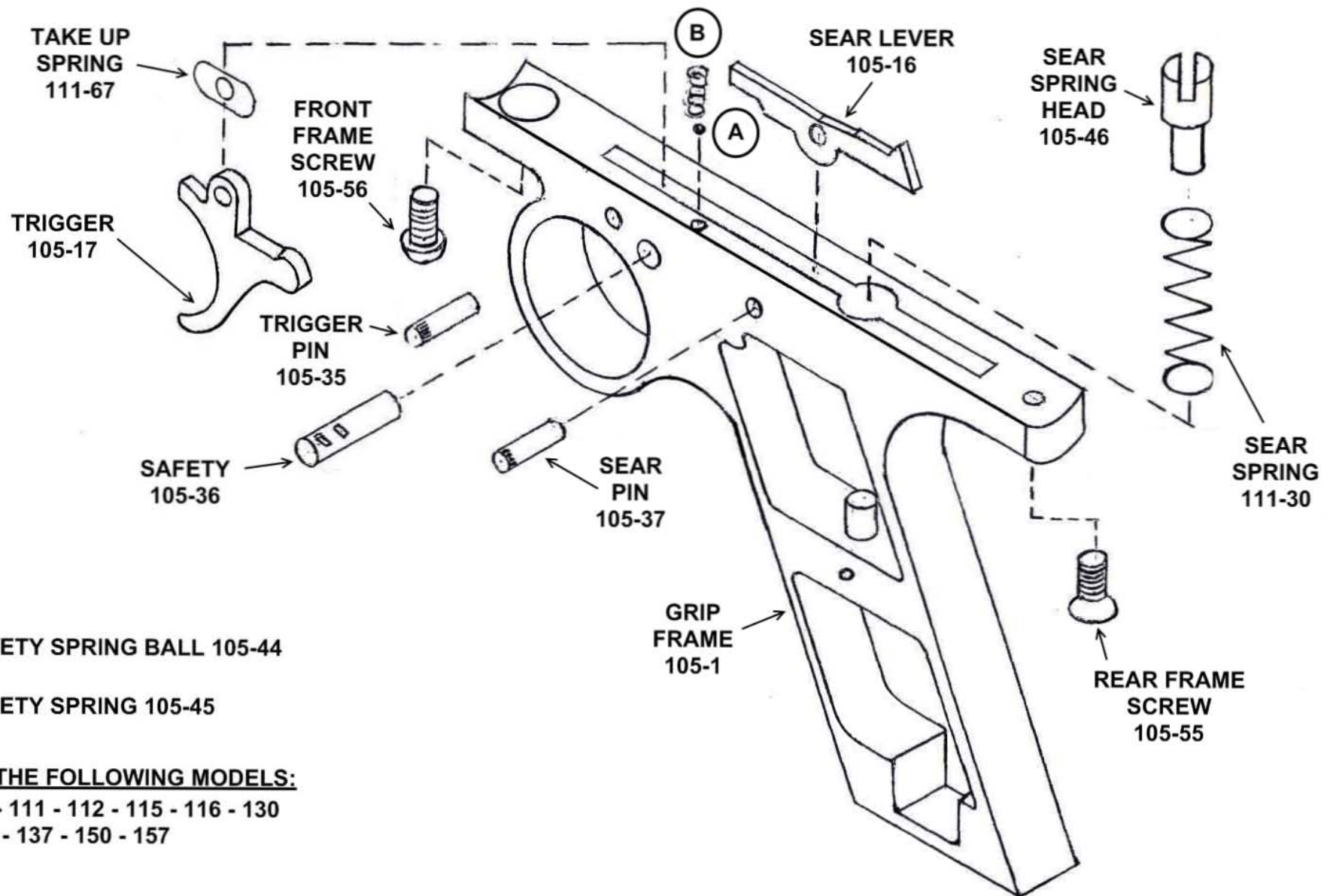
105

106

130

137

**NOTE: ORIGINAL BOOK SHOWS
PART NUMBER 105-33 FOR THE
PUMP LEVER RIVET AND PUMP
LEVER LINK BUT THE PARTS LIST
GIVES 105-5 FOR THE PUMP LEVER
LINK AND 105-33 FOR THE PUMP
LEVER RIVET**



USED ON THE FOLLOWING MODELS:

105 - 106 - 111 - 112 - 115 - 116 - 130
- 137 - 150 - 157

DISASSEMBLY PROCEDURE FOR AIR PISTOLS - - - MODELS 105-106 REFER TO DRAWINGS PAGE 9.2, 9.3, 9.4, 9.5

1. Refer to Items 1, 2, 3 on Page 10-A for removing Grip Frame Assembly, Hammer and Exhaust Valve Assembly.
2. Remove Front Sight Pin (110-15), from Sight (105-26) and Pump Assembly from Compression Tube.
NOTE: This model was made with various Pump Levers when replacement is necessary Pump Lever (130-8) Page 9.4 should be used. Refer to drawing Page 1.3 (lower left hand portion) and Page 1-C, Item 2 for Cup Pump replacement details.

Details for Valve System shown in Drawing on Page 9.3 are explained on Page 2-A. Breech, Compression Chamber (105-23) and Chamber Locating Pin (105-22) are soldered to Tube. Leaks developed around Locating Pin and between Breech and Tube may be repaired with soft solder.

CROSMAN PARTS LIST

MODEL 105 - .177 Cal. Air Pistol

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
105-1	Grip Frame	1.26	
105-4	Barrel	2.36	
105-5	Pump Lever Link	.12	
105-6	Pump Guide	.42	
105-7	Pump Adj. Rod	.24	
105-8	Ex. Valve Nut	.36	
105-12	Valve Stem	.18	
105-13	Hammer	.60	
105-17	Trigger	.24	
105-18	Breech Bolt Lock	.20	
105-19	Lock Pin	.50	Doz.
105-20	Hammer Spring	.18	
105-24	Hammer Spring Stop	.55	
105-26	Front Sight	.75	
105-31	Ex. Body Gasket	.10	
105-33	Pump Lever Rivet	.50	Doz.
105-35	Trigger Pin	.50	Doz.
105-36	Safety	.24	
105-37	Sear Pin	.50	Doz.
105-39	Breech Bolt Spring Ball	.30	Doz.
105-40	Breech Bolt Spring	.50	Doz.
105-44	Safety Spring Ball	.30	Doz.
105-45	Safety Spring	.50	Doz.
105-46	Sear Spring Head	.18	
105-47	Spring Washer	.50	Doz.
105-50	Plastic Grip	1.14	
105-53	Breech Bolt Lock Screw	.50	Doz.
105-54	Grip Screw	.50	Doz.
105-55	Frame Screw Rear	.50	Doz.
105-56	Frame Screw Front	.50	Doz.
105-58	Rear Sight Elev. Screw	.50	Doz.
105-63	Chamber Spring Guide	.18	
105-64	Check Valve Nut	.36	
105-66	Ex. Valve Assembly	1.44	
105-71	Breech, Barrel, Tube Ass'y,	6.24	
105-73	Bolt Lock Assembly	.35	
106-4	Barrel	2.36	

MODEL 106 - .22 Cal. Air Pistol

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
112-14	Breech Bolt	.60
106-71	Breech, Barrel, Tube Ass y.	9.36

INTERCHANGEABLE PARTS

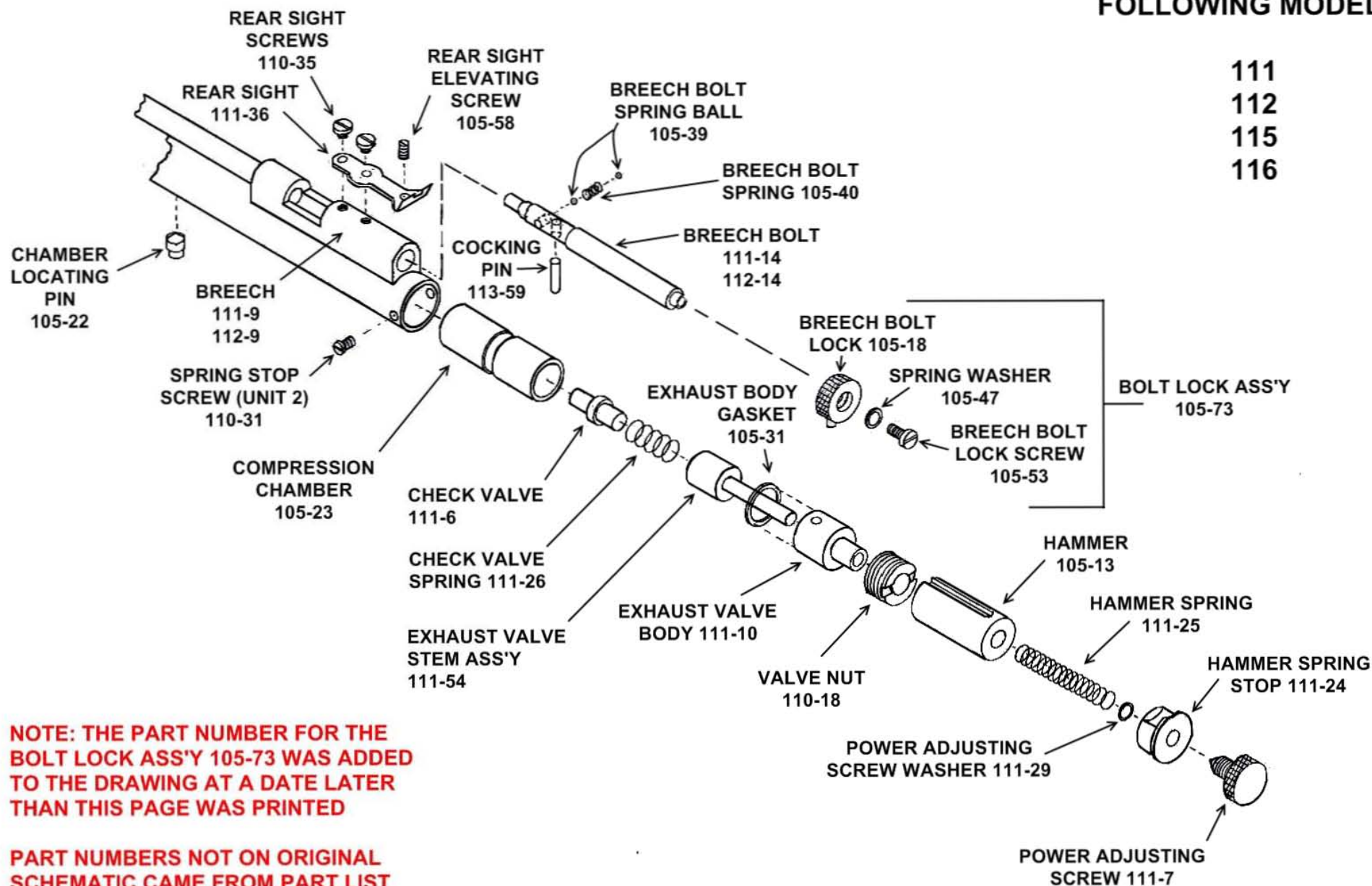
101-19	Pump Lock Nut	.50	Doz.
101-26	Compression Head	.16	
101-31	Felt Washer	.50	Doz.
101-32	Check Valve Stem	.35	
101-33	Plunger Guide Pin	.50	Doz.
101-36	Pump Cup	.16	
101-50	Compression Head Washer	.16	
101-58	Felt Retainer	.20	
101-63	Ex. & Check Valve Washer	.16	
101-66	Check Valve Assembly	1.00	
110-15	Front Sight Pin	.08	
110-18	Valve Nut	.36	
110-31	Hammer Lock Screw	.50	Doz.
110-35	Rear Sight Screw	.50	Doz.
111-10	Ex. Valve Body	.36	
111-14	Breech Bolt	.60	
111-26	Check Valve Spring	.18	
111-30	Sear Spring	.18	
111-36	Rear Sight	.25	
111-67	Take Up Spring	.16	
113-59	Cocking Pin	.12	
130-16	Sear Lever	.16	
130-8	Lever	.54	

CO₂ GAS PISTOL BREECH BLOCK AND TUBE COMPONENTS

PAGE 10.1

USED ON THE
FOLLOWING MODELS:

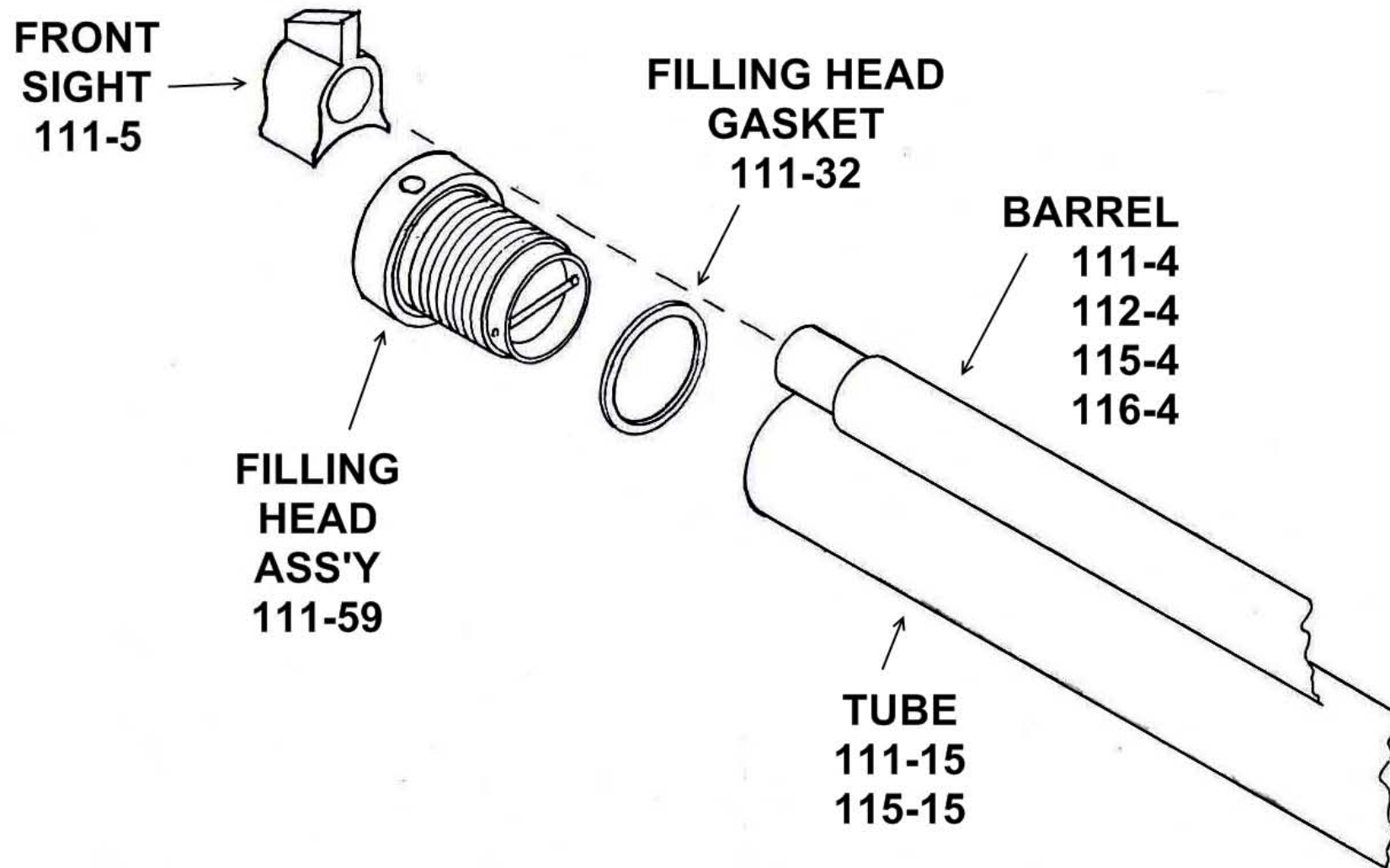
111
112
115
116



FRONT SIGHT AND FILLING HEAD ASS'Y

PAGE 10.2

USED ON MODELS

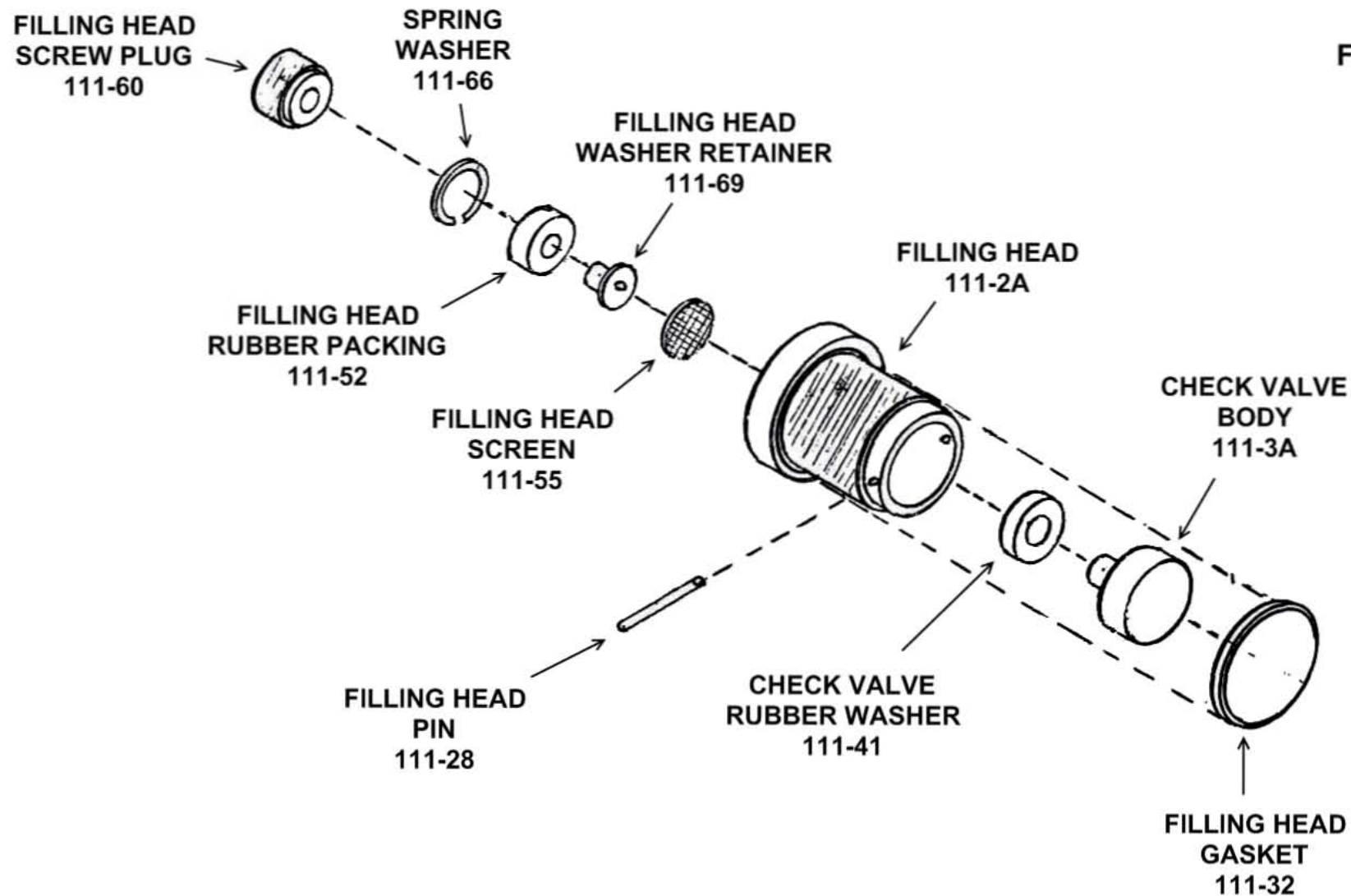


FILLING HEAD ASS'Y

PAGE 10.3

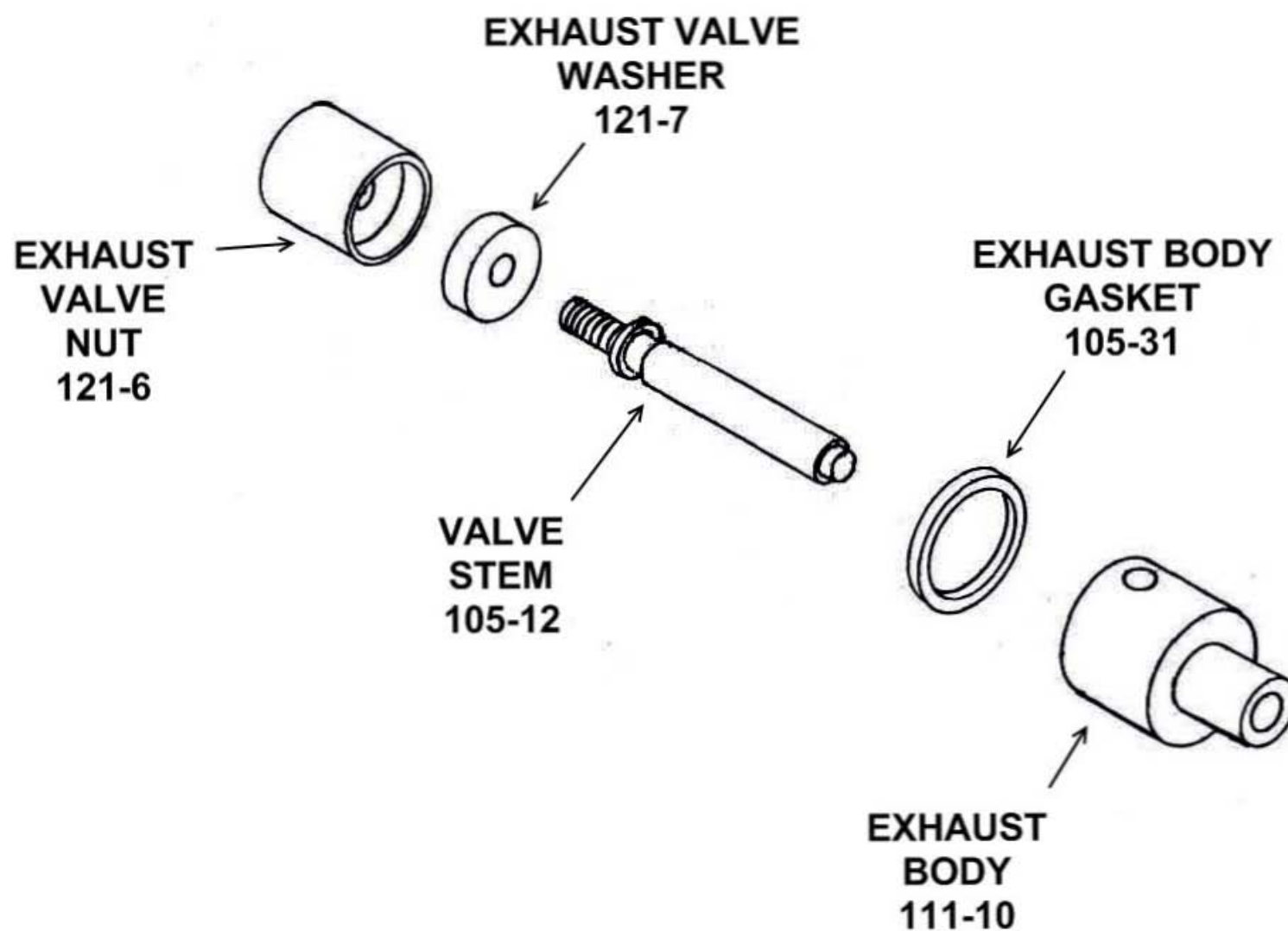
USED ON THE
FOLLOWING MODELS:

111
112
113
114
115
116
118



EXHAUST VALVE ASSEMBLY

PAGE 10.4



USED ON MODELS

111
112
113
114
115
116
118

DISASSEMBLY PROCEDURE FOR CO₂ PISTOLS---MODELS 111-112-115-116 REFER TO DRAWINGS PAGE 10.1, 10.2

1. Remove 2 Grip Screws from Plastic Grip.
Remove Plastic Grip.
Remove Front Frame Screw (105-56).
Remove Rear Frame Screw (105-55).
CAUTION: Safety Ball (105-44) and Spring (105-45) may fall out.
Refer to Drawing Page 9.5 for Pistol Frame Assembly detail.
2. Clamp Tube in protected vise jaws. Do Not put strain on Breech. Breech side down.
Remove Hammer Spring Stop Screws (110-31)
Remove Hammer Spring Stop (111-24).
Remove Hammer Spring (111-25).
Remove Power Adjusting Washer (111-29).
Remove Hammer (105-13).
CAUTION: Breech Bolt Balls (105-39) and Spring (105-40) may fall out when Breech Bolt is removed.
NOTE: Some early models contained a cocking screw, replaced by Cocking Pin for better performance. Refer to drawing Page 10.1 for Breech Bolt Assembly detail.
3. Expel all CO₂ Gas from pistol by inserting a 9/16" Dia. Rod in rear of Tube, tapping rod until CO₂ Gas is depleted.
Remove Valve Nut (110-18) using Special Valve Wrench (T-1).
Exhaust Valve Body must be held in position with Locating Pin (T-3), in blind hole provided for this purpose, while unscrewing Body Lock Nut.
Remove Exhaust Valve Body Assembly from Tube with Valve Extractor, threaded portion, (T-5).
(Unthreaded portion of wrench used to Assemble Valve).
Shake out check Valve (111-6) and Check Valve Spring (111-26).
NOTE: If Exhaust Valve Gasket (111-22) adheres to Chamber, it can be picked out with wire hook.
Refer to Drawing Page 10.1 and 10.4 for Valve Assembly detail.
4. Remove Filling Head Ass'y. from Tube using special spanner wrench (T-4). Refer to Drawing Page 10.3 for Filling Head Assembly detail.
Instruction below. Refer to Drawing Page 10.1 for Barrel, Breech, Chamber and Tube Assembly for detail.

FILLING HEAD ASSEMBLY--REFER TO DRAWING PAGE 10.3--USED ON CO₂ PISTOL MODELS 111-112-115-116 RIFLES 113-114-118

FUNCTION: TO TRANSFER AND RETAIN CO₂ FROM THE 10 OZ. CYLINDER TO THE GUN UNIT.

- | | |
|---|---|
| <p>111-60 Filling Head Screw Plug prevents foreign material from damaging threads.</p> <p>111-66 Spring Washer retains 111-52 packing, 111-69 and 111-53 Screen.</p> <p>111-32 Filling Head Gasket seals 111-2A Filling Head to Tube.</p> | <p>111-41 Check Valve Rubber Washer and 111-3A Check Valve Body seals on internal seat in 111-2A Filling Head.</p> <p>111-28 Filling Head Pin retains Check Valve in Filling Head.
FILLING HEAD Ass'y. IS SCREWED INTO TUBE WITH SPANNER WRENCH</p> |
|---|---|

MALFUNCTION:**CAUSE:****CORRECTIVE MEASURE:**

111-32 Gasket Leaking

Loose Head or Broken Gasket

Tighten with Spanner Wrench, replace gasket.

Filling Head Leaking

Foreign particles on seat or
111-41 Check Valve Washer.Remove Filling Head Ass'y. from Tube,
Remove 111-28 Filling Head Pin, 111-3A
Check Valve Body. Clean or replace 111-41
Check Valve Washer. Clean Seat,
Reassemble.

Filling Head Assembly containing 111-2A, Short Filling Head and 111-3A Check Valve Safety Body.

NOTE: 111-2 Long Filling Head and 111-3 Check Valve Safety Body may be re-used if in good condition. All other parts of assembly are interchangeable.

SPECIAL TOOLS: SPANNER WRENCH (T-4).

GENERAL INFORMATION ABOUT C02 PISTOL MODELS 111-112-115-116.

COMPRESSION CHAMBER (105-23) and Chamber Locating Pin (105-22) are soldered to Tube.

Breech (111-9) and Front Sight (111-5) are soldered to Tube.

Leaks developed around Chamber Locating Pin (105-22) and between Breech & Tube may be repaired with soft solder.

Valve Nut (110-18) must be tight to prevent leak around Gasket (105-31).

Line up blind hole in Exhaust Valve Body thru bottom of Tube with Locating Pin (T-3) and Hold in place while tightening Valve Nut.

Remove dirt from Chamber and Valve parts before assembling.

NOTE: Exhaust Valve Nut (121-6) must be tight on Stem (105-12).

Examine metal and rubber seats for damage, replace if necessary.

CROSMAN PARTS LIST

Page 10.C

MODEL 111 - .177 Cal. CO₂ Pistol-Long Barrel

MODEL 112 - .22 Cal. CO₂ Pistol-Long Barrel

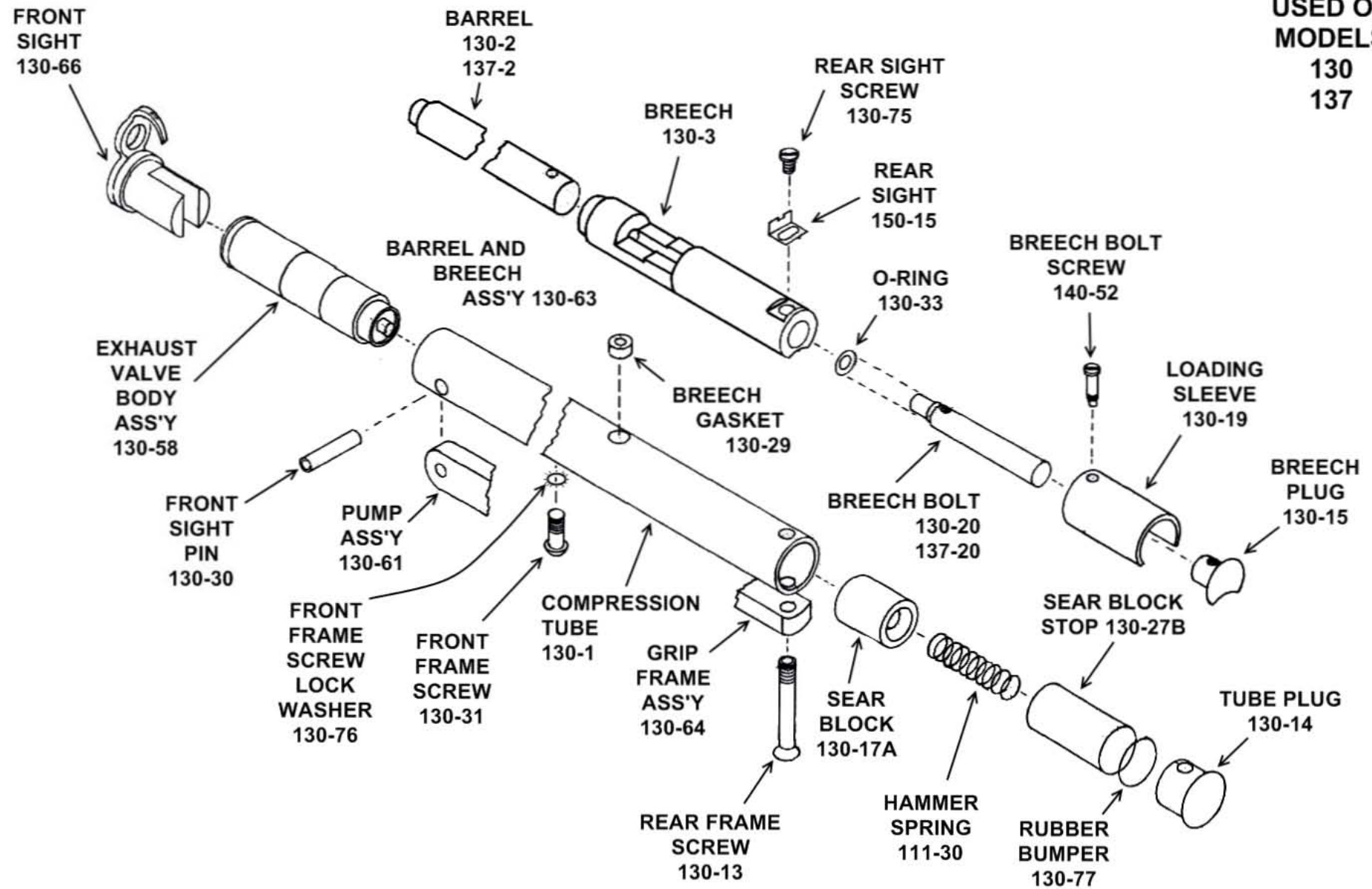
<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
111-59	Filling Head Ass'y	1.68
111-2A	Filling Head	1.02
111-3A	Filling Head Check Valve	.18
111-4	Barrel	1.88
111-5	Front Sight	.14
111-6	Check Valve	.18
111-7	Adjusting Screw	.28
111-10	Exhaust Valve Body	.36
111-14	Breech Bolt	.60
111-24	Hammer Spring Stop	.50 Doz.
111-25	Hammer Spring	.18
111-26	Check Valve Spring	.18
111-28	Filling Head Pin	.50 Doz.
111-29	Adj. Screw Washer	.50 Doz.
111-30	Sear Spring	.18
111-32	Filling Head Gasket	.10
111-36	Rear Sight	.25
111-41	Filling Hd. Check Val. Washer	.16
111-52	Filling Head Washer	.16
111-53	Filling Head Screen	.08
111-54	Ex. Valve Assembly	1.44
111-56	Breech, Barrel, Tube & Sight Assembly	6.24
111-60	Filling Head Plug	.12
111-66	Snap Ring	.10
111-67	Take Up Spring	.16
111-69	Filling Hd. Washer Retainer	.12
111-65	Safety Check Valve Ass'y.	.32
INTERCHANGEABLE PARTS		
105-1	Grip	1.26
105-12	Valve Stem	.18
105-13	Hammer	.60
105-17	Trigger	.24
105-18	Breech Bolt Lock	.20
105-19	Lock Pin	.50 Doz.
105-31	Ex. Valve Gasket	.10
105-35	Trigger Pin	.50 Doz.
105-36	Safety	.24

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
105-37	Sear Pin	.50 Doz.
105-39	Breech Bolt Spring Ball	.50 Doz.
105-40	Breech Bolt Spring	.50 Doz.
105-44	Safety Spring Ball	.50 Doz.
105-45	Safety Spring	.50 Doz.
105-46	Sear Spring Head	.18
105-47	Spring Washer	.50 Doz.
105-50	Plastic Grip	1.14
105-53	Breech Bolt Lock Screw	.50 Doz.
105-54	Grip Screw	.50 Doz.
105-56	Front Hold Down Screw	.50 Doz.
105-58	Rear Sight Elev. Screw	.50 Doz.
105-73	Bolt Lock Assembly	.35
110-18	Valve Nut	.36
110-31	Hammer Stop Screw	.50 Doz.
110-35	Rear Sight Screw	.50 Doz.
121-6	Exhaust Valve Nut	.36
121-7	Exhaust Valve Washer	.16
113-59	Cocking Pin	.12
130-16	Sear Lever	.16
140-35	Rear Hold Down Screw	.50 Doz.
112-4	Barrel	1.88
112-14	Breech Bolt	.60
112-56	Breech, Barrel, Tube & Sight Ass'y.	6.24
115-4	Barrel	1.88
115-56	Breech, Barrel, Tube & Sight Ass'y.	6.12
116-56	Breech, Barrel, Tube & Sight Ass'y.	6.12
116-4	Barrel	1.88

GENERAL ASSEMBLY PUMP PISTOL

PAGE 11.1

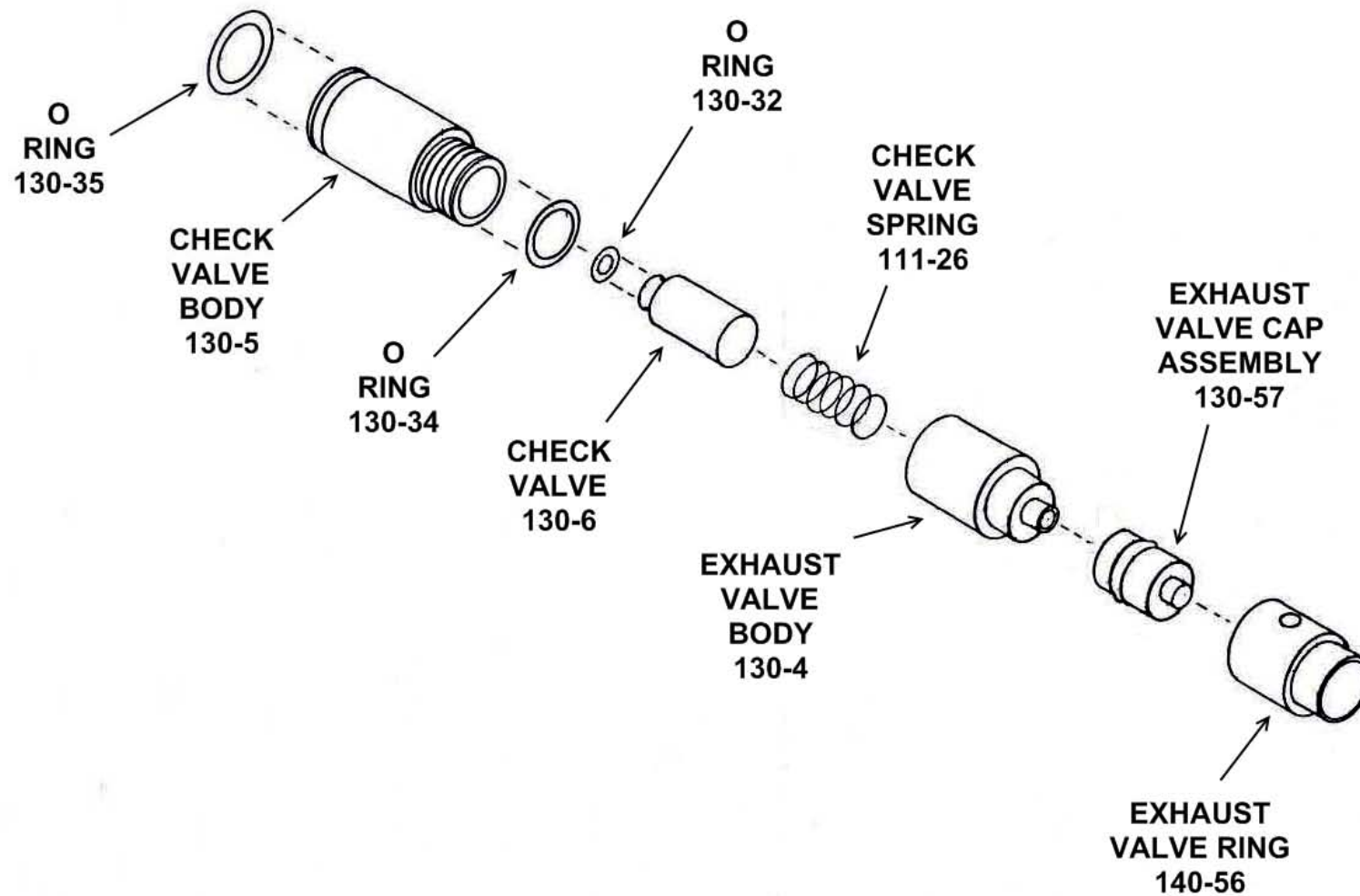
USED ON
MODELS
130
137



CHECK & EXHAUST VALVE ASSEMBLY FOR PUMP PISTOL

PAGE 11.2

USED ON
MODELS
130
137



DISASSEMBLY PROCEDURE FOR AIR PISTOLS---MODELS 130 – 137 REFER TO DRAWINGS PAGE 11.1, 11.2

1. Remove Rear Sight Screw (130-18)
Remove Rear Sight (130-23).
Remove Rear Frame Screw (113-13)
Remove Front Frame Screw (130-31).
Remove Grip Frame Assembly (130-64).
Drawing Page 9.5 CAUTION: Safety Spring Ball (105-44) and Safety Spring (105-45) may drop out.
2. Lift off Breech and Barrel Assembly.
3. Push out Front Sight Pin (130-30)
Remove Front Sight Assembly (130-66)
Remove Pump Assembly (130-61).
4. Remove Tube Plug (130-14).
Remove Sear Block Stop (130-27B)
Remove Hammer Spring (111-30).
Remove Sear Block (130-17A).
5. Push out Exhaust Valve Body Assembly (130-58) from rear using 3/8" wooden dowel.

EXHAUST VALVE BODY ASSEMBLY: Early Models of 130-137 had a pin type Valve System that should be replaced with system shown on Page 11.2. Inspect gaskets and metal seats for damaged surfaces, replace when necessary. Parts must be clean prior to assembling.

NOTE: When installing Exhaust Valve Assembly into Tube, spread Tube slightly as "O" Ring (130-55) passes front sight pin holes. Damage to "O" ring seal will cause air to by pass valve.

Pump Assembly: Early models of 130-137 had an "O" Ring piston. This type piston should be replaced with one shown in Drawing Page 9.4.

All steel Pump Lever (130-8) replaces Lever with wooden forearm.

When assembling Pump Assembly to Tube adjust Piston for maximum stroke before tightening Pump Lock (101-19). Maximum stroke is obtained when Pump is in closed position and Front Sight Pin holes lined up. Use Pump Adjusting Pin tool (T-2) for this purpose.

Some models contained a headless Breech Bolt Screw that should be replaced with (140-52) to prevent loading sleeve from lifting up.

CROSMAN PARTS LIST

Page 11.B

MODEL 130 - .22 Cal. Air Pistol

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
130-1	Tube	1.62
130-2	Barrel	1.88
130-3	Breech	1.20
130-4	Exhaust Valve Body	.42
130-5	Check Valve Body	.42
130-6	Check Valve	.08
130-8	Lever	.54
130-10A	Front Sight Bearing	.42
130-11	Front Sight	.12
130-13	Frame Screw	.24
130-14	Tube Plug	.24
130-15	Breech Plug	.32
130-16	Sear	.16
130-17A	Sear Block	.30
130-75	Rear Sight Screw	.50 Doz.
130-19	Loading Sleeve	.24
130-20	Breech Bolt	.32
130-15	Rear Sight	.10
130-24	Sear Pin	.50 Doz.
130-25	Grip Plates	.30 Set
130-29	Breech Gasket	.50 Doz.
130-30	Front Sight Pin	.08
130-31	Frame Front Screw	.50 Doz.
130-32	#1 "0" Ring	.12
130-33	#2 "0" Ring	.12
130-34	#7 "0" Ring	.12
130-35	#9 "0" Ring	.16
130-40	Grip Frame	1.26
130-57	Valve Cap Assembly	.43
130-58	Ex. Valve Body Ass'y.	2.40
130-59	Piston Assembly	.98
130-62	Breech, Lock Pin Ass'y-	1.35
130-66	Front Sight Ass'y.	.48
130-76	Front Frame Screw Lockwasher	.50 Doz.

MODEL 130 CONT'D.

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
130-77	Rubber Bumper	.05
137-2	Barrel	1.88
137-20	Breech Bolt	.32
101-19	Pump Lock Nut	.50 Doz.
130-27B	Sear Block Stop	.25
130-63	Barrel and Breech Assy.	4.81
130-6	Lever and Link Ass'y.	.84

MODEL 137 - .177 Cal. Air Pistol

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
101-31	Felt Washer	.50 Doz.
101-33	Plunger Guide Pin	.50 Doz.
105-5	Lever Link	.12
105-6	Pump Guide	.42
105-17	Trigger	.24
105-19	Lock Pin	.50 Doz.
105-33	Lever Rivet	.50 Doz.
105-35	Trigger Pin	.50 Doz.
105-36	Safety	.24
105-44	Safety Ball	.30 Doz.
105-45	Safety Spring	.50 Doz.
105-46	Sear Spring Head	.18
105-54	Grip Screw	.50 Doz.
105-58	Barrel Set Screw	.50 Doz.
111-26	Check Valve Spring	.18
111-30	Sear Spring	.18
111-67	Take Up Spring	.16
140-42	Exhaust Valve Washer	.16
140-52	Breech Screw	.08
140-56	Exhaust Valve Ring	.20
140-58	#6 "0" Ring	.12

MODIFICATION OF CROSMAN MODEL 130 - 137

Reference to Section 11 in Repair Manual

The Model 130 - 137 is being produced with a new Rear Sight. This change is being made on guns **manufactured after October 15, 1956**, to improve the line of sight to coincide with path of pellet.

Part #130-3 Breech replaced with Part #130-73 Breech.
(Milled section for mounting sight has been changed)

Part #130-23 Rear sight replaced with Part #150-15 Rear Sight.

(Higher and heavier Rear Sight)

Part #130-18 Rear Sight Screw replaced with Part #130-75 Rear Sight Screw.

(Longer and larger head on screw)

These new Parts: 130-73, 150-15, 130-75 are not interchangeable with old Part Numbers. Use the new numbers when ordering replacement parts on modified models with larger rear sight only. Use old Part numbers when ordering replacement parts on models with small rear sight only.

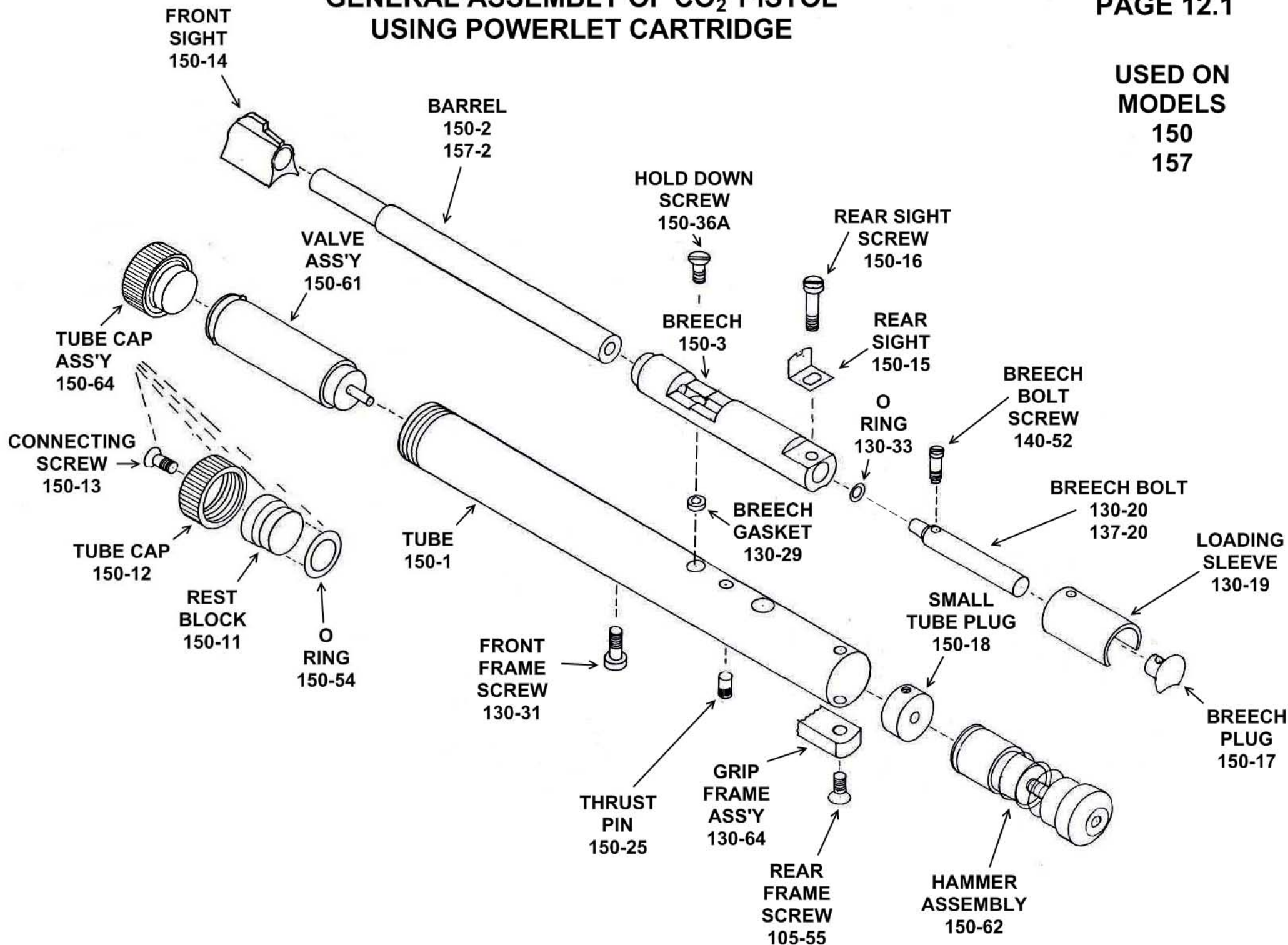
It is not necessary to modify models existent on the market.

Please change your Manual - Section #11, accordingly.

GENERAL ASSEMBLY OF CO₂ PISTOL USING POWERLET CARTRIDGE

PAGE 12.1

USED ON
MODELS
150
157

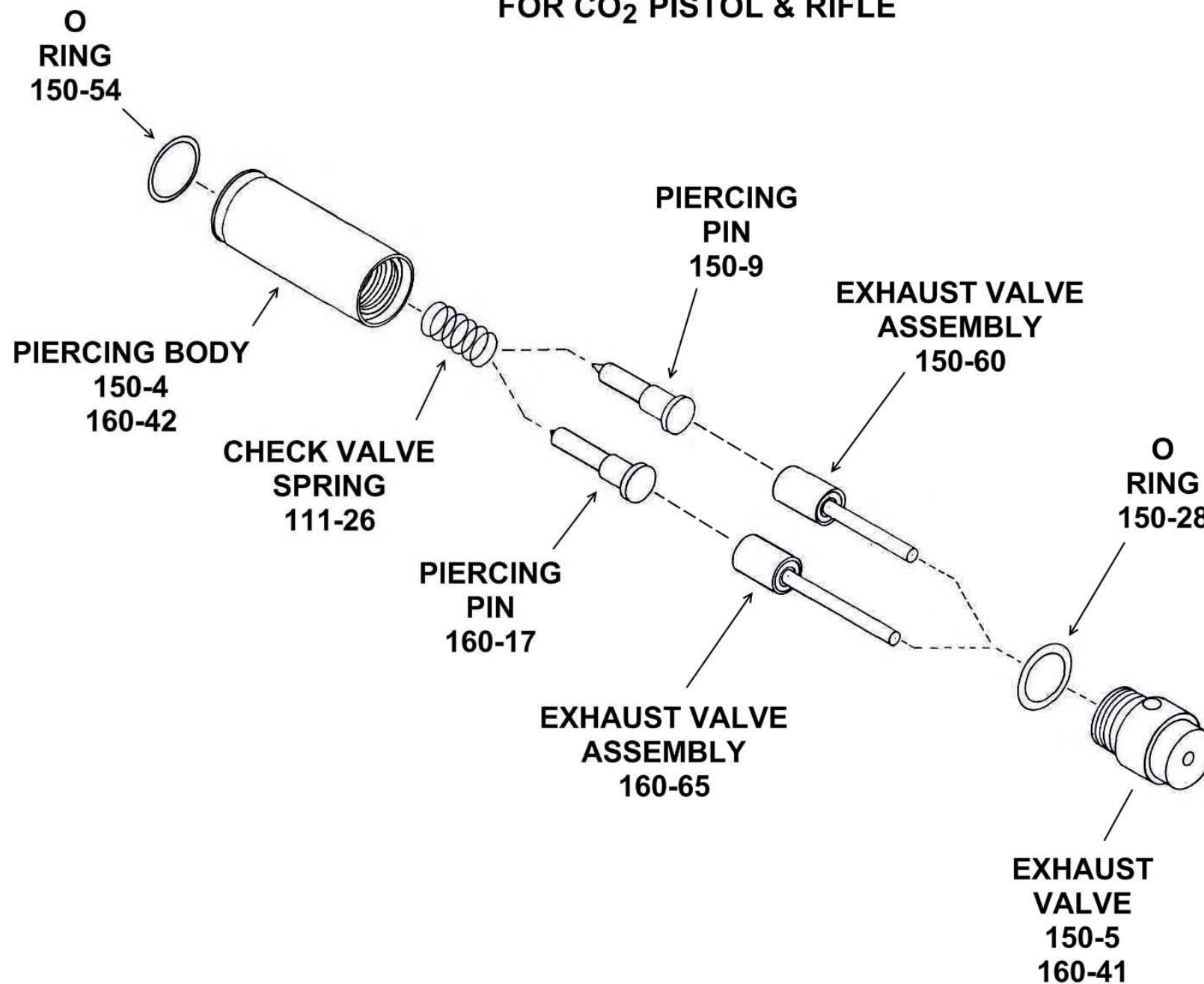


PIERCING PIN AND EXHAUST VALVE ASSEMBLY FOR CO₂ PISTOL & RIFLE

PAGE 12.2

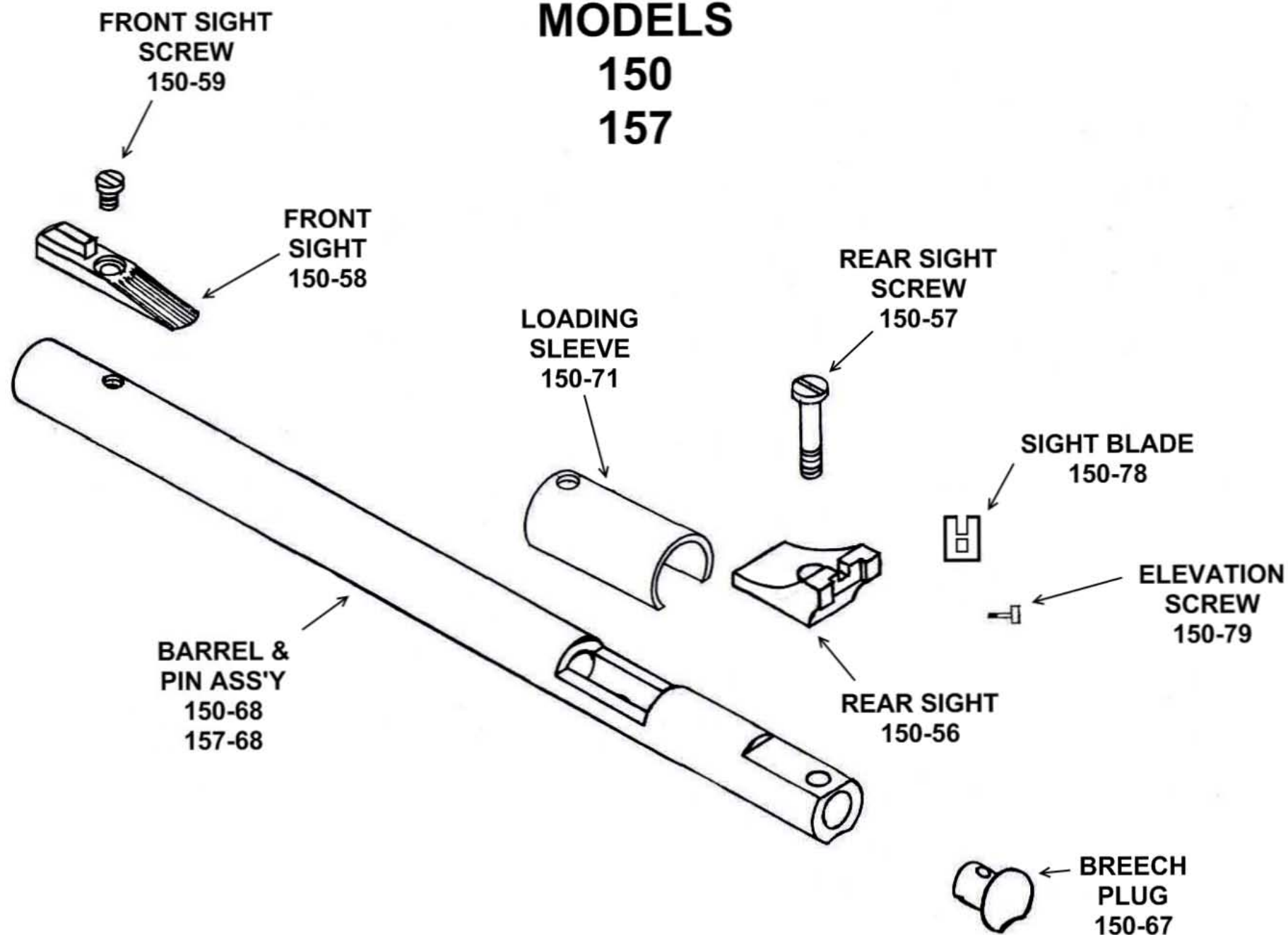
USED ON
MODELS

150
157
160
167



MODIFICATION ON MODELS 150 157

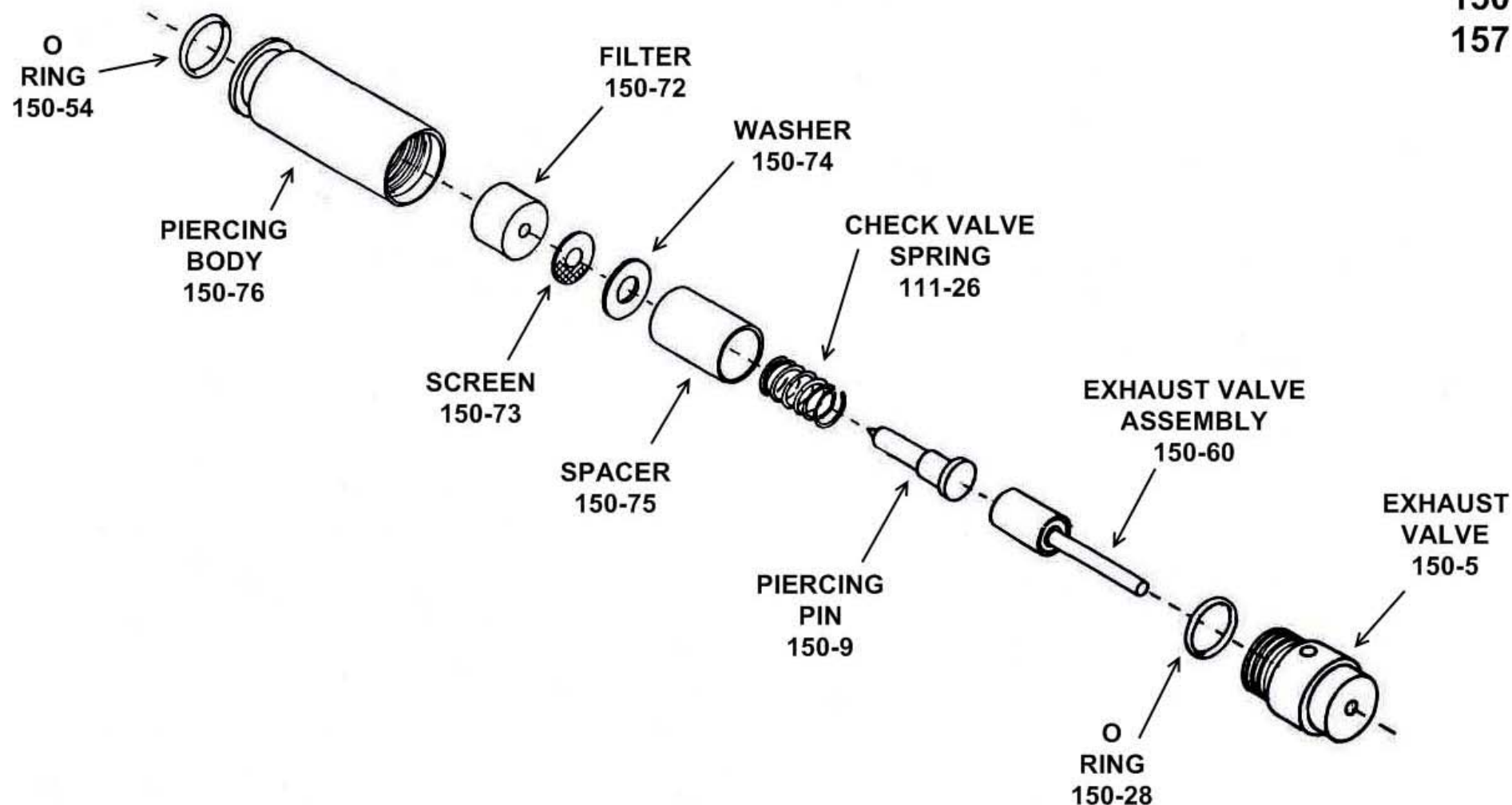
PAGE 12.3



PIERCING PIN & EXHAUST VALVE ASSEMBLY FOR CO₂ PISTOL WITH FILTER

PAGE 12.4

USED ON
MODEL
150
157



DISASSEMBLY PROCEDURE FOR CO₂ PISTOLS - - MODELS 150 – 157

REFER TO DRAWINGS PAGE 12.1, 12.2

1. Remove Grip Screws and Plastic Grip.
To remove Grip Frame Assembly (130-64), remove rear Frame Screw (105-55) and Front Frame Screw (130-31). **CAUTION:** Safety Spring (105-45) and Safety Spring Ball (105-44) may drop out when Grip Frame is removed.
2. Remove Rear Sight Screw (150-16).
Remove Rear Sight (150-15).
Remove Breech Plug (150-17).
Remove Breech Bolt Screw (140-52) and slide Breech Bolt (130-20) out to rear.
Slide Loading Sleeve (130-15) forward and remove.

NOTE: Some models contained a headless breech Bolt Screw that should be replaced with (140-52) to prevent Loading Sleeve from lifting up.
3. Remove Hold Down Screw (150-36A).
Lift Breech Barrel from Sight Assembly.
Remove Hammer Assembly (150-62).
NOTE: Early models contained a Hammer Assembly with a screw type Power Adj. that should be replaced with type shown in Drawing Page 12.1.
4. Exhaust all CO₂ Tube, by tapping Valve Stem thru rear of Tube, before removing Tube Cap Assembly (150-64)
5. Push Valve Assembly (150-61) out of Tube (150-1) from rear, using 1/8" rod.
Refer to drawing Page 12.2 for piercing and Exhaust Valve details. Inspect Exhaust Valve gasket and metal seats for damaged surfaces, replace when necessary. Parts must be clean prior to assembling.

Rest Block "O" Ring (150-54) is a special compounded material that resists swelling under CO₂ pressure.

MODIFICATION OF PIERCING PIN PART #160-17, Sec. 12, Page 12.2

The .245 Dia. shoulder on Piercing Pin has been reduced in length from 11/32" to 3/16". This change has been made to eliminate the piercing pin from sticking in the orifice of the aluminum Piercing Body Part #160-42.

This modification was made on Rifles in production 2-15-56 at the factory.

MODIFICATION OF MODEL 150 – 157 CO₂ PISTOL

On Current Models of the 150 Series being produced the Breech and Barrel section is one piece. It is attached to Tube same as former model.

Ramp type Front Sight is attached with a screw.

Loading Sleeve (180-16) has locking notch milled on side for shorter locking of Breech Bolt.

Rear Sight is target type powdered metal and Breech Plug (150-67) is 9/16" Dia.

Breech Bolt (130-20) and (137-20), Breech Bolt
Screw (140-52), "O" Ring (130-33) and Hold Down
Screw (150-36A) are used with modified Barrel & Breech Assembly.

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
150-68	Barrel Assembly	3.71
150-56	Rear Sight	.32
150-57	Rear Sight Screw	.50 Doz.
150-58	Front Sight	.21
150-59	Front Sight Screw	.50 Doz.
150-67	Breech Plug	.24
150-71	Loading Sleeve	.30

CROSMAN PARTS LIST

MODEL 150 - .22 Cal. CO₂ PistolMODEL 157 - .177 Cal. CO₂ Pistol

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
150-1	Tube	1.38
150-2	Barrel	1.68
150-3	Breech	1.68
150-4	Piercing Body	.60
150-5	Exhaust Valve	.30
150-9	Piercing Pin	.24
130-16	Frame Screw	.50 Doz.
150-11	Rest Block	.24
150-12	Tube Cap	.60
150-13	Connecting Screw	.50 Doz.
150-14	Front Sight	.30
150-15	Rear Sight	.12
150-16	Sight Screw	.50 Doz.
150-17	Breech Plug	.24
150-18	Small Tube Plug	.32
150-19A	Tube Plug	.24
150-20A	Hammer	.48
150-22A	Cocking Rod	.18
150-23A	Cocking Cap	.32
150-25	Thrust Pin	.50 Doz.
150-28	#10 "O" Ring	.18
150-31A	Hammer Spring	.18
150-36A	Hold Down Screw	.50 Doz.
150-40A	Cocking Spring	.18
150-54	#11 "O" Ring CO ₂	.32
150-60	Valve Stem Assembly	.78
150-77	Valve Assembly	2.88
150-62A	Hammer Assembly	1.48
150-63	Barrel Assembly	3.78
150-64	Tube Cap Assembly	1.20
157-2	Barrel1	.68
157-63	Barrel Assembly	3.78
137-20	Breech Bolt	.32

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
INTERCHANGEABLE PARTS		
105-1	Grip Frame	1.26
105-17	Trigger	.24
105-19	Lock Pin	.50 Doz.
105-36	Safety	.24
105-37	Sear Pin	.50 Doz.
105-39	Safety Ball	.30 Doz.
105-45	Safety Spring	.50 Doz.
105-46	Sear Spring Head	.18
105-54	Grip Screw	.50 Doz.
105-55	Rear Frame Screw	.50 Doz.
111-16	Sear	.16
111-26	Check Valve Spring	.18
130-64	Sear Spring	.18
111-59	Grip Frame Assembly	2.28
111-67	Take Up Spring	.16
130-19	Loading Sleeve	.24
130-20	Breech Bolt	.32
130-25	Grip Plates	.30 Set
130-29	Breech Gasket	.50 Doz.
130-33	#2 "O" Ring'	.12
130-61	Breech Bolt Assembly	.54
140-52	Breech Bolt Screw	.08
150-78	Sight Blade	.05
150-79	Elevation Screw	.05
150-80	Adj. Rear Sight Ass'y	.05
150-82	Grip Frame Ass'y	1.26

REVISIONS TO CROSMAN PARTS LIST 5/22/59

Model 150-157

Part #150-77 Valve Assembly replaces Part #150-61.

Part #150-76 Piercing Body replaces Part #150-4.

ADDITION TO PARTS LIST

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
150-72	Filter	.05
150-73	Screen	.05
150-74	Washer	.06
150-75	Spacer	.16
150-76	Piercing Body	.72
150-77	Valve Assembly	2.88

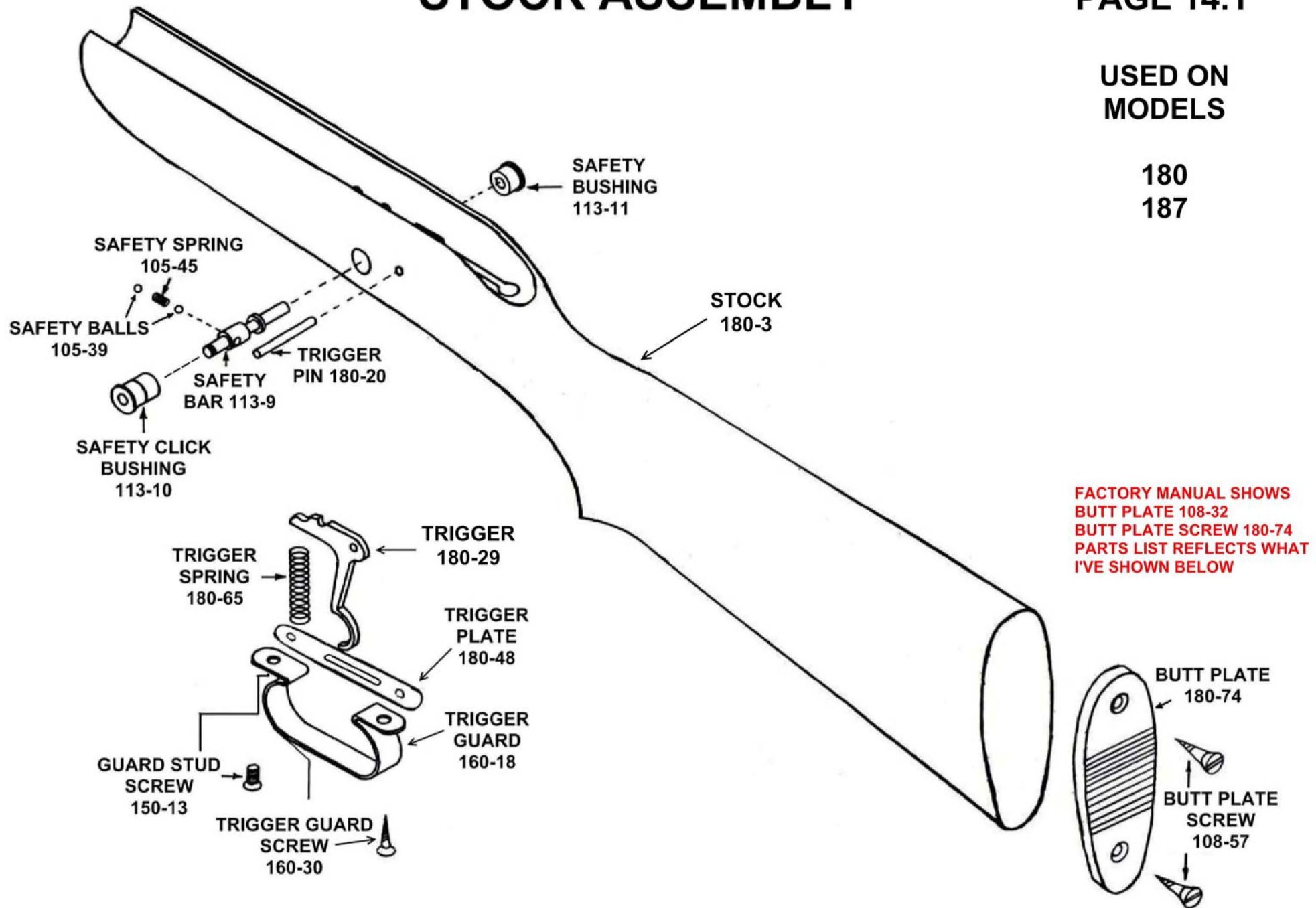
Refer to drawing Page 12.4

STOCK ASSEMBLY

PAGE 14.1

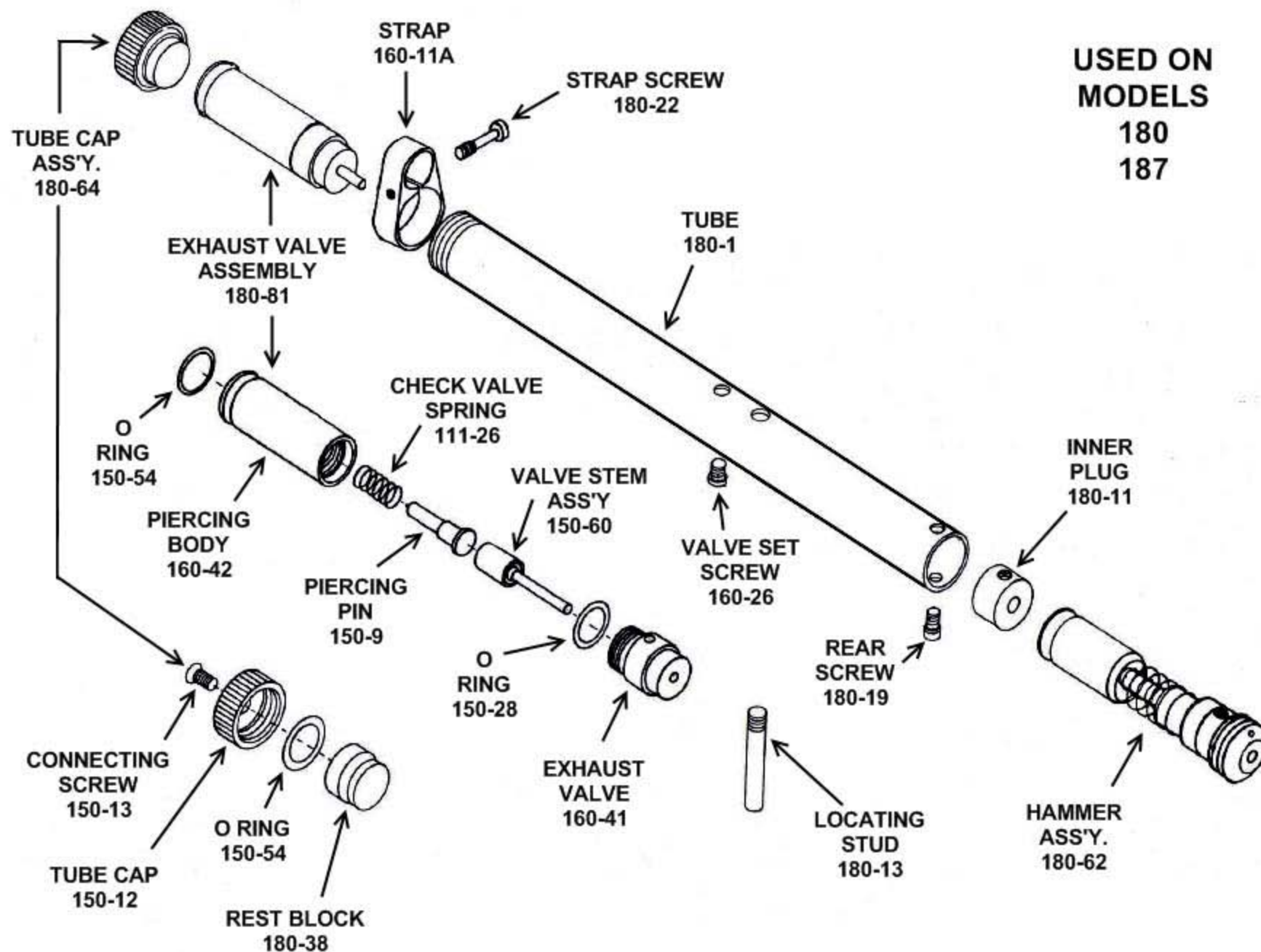
USED ON
MODELS

180
187



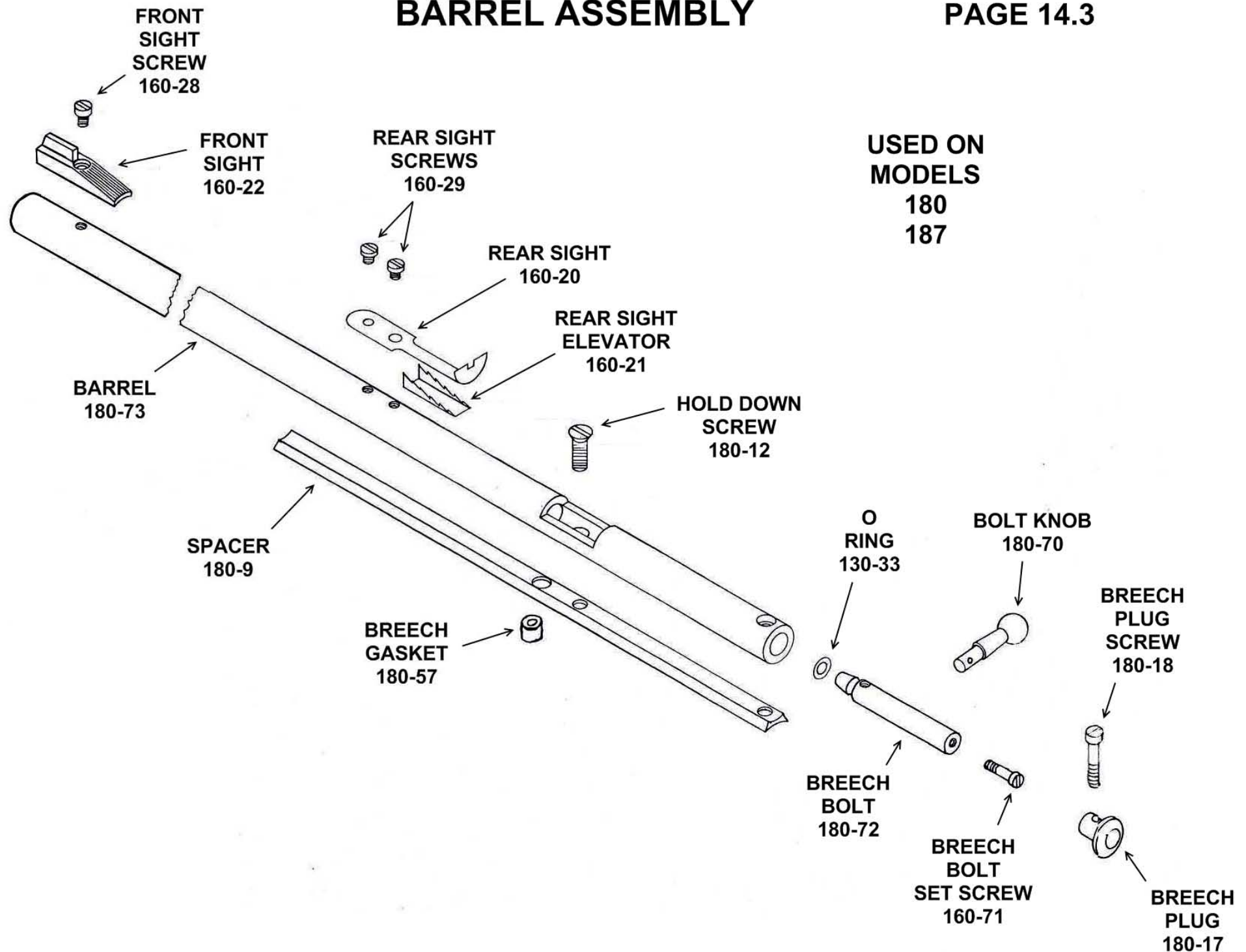
TUBE ASSEMBLY

PAGE 14.2



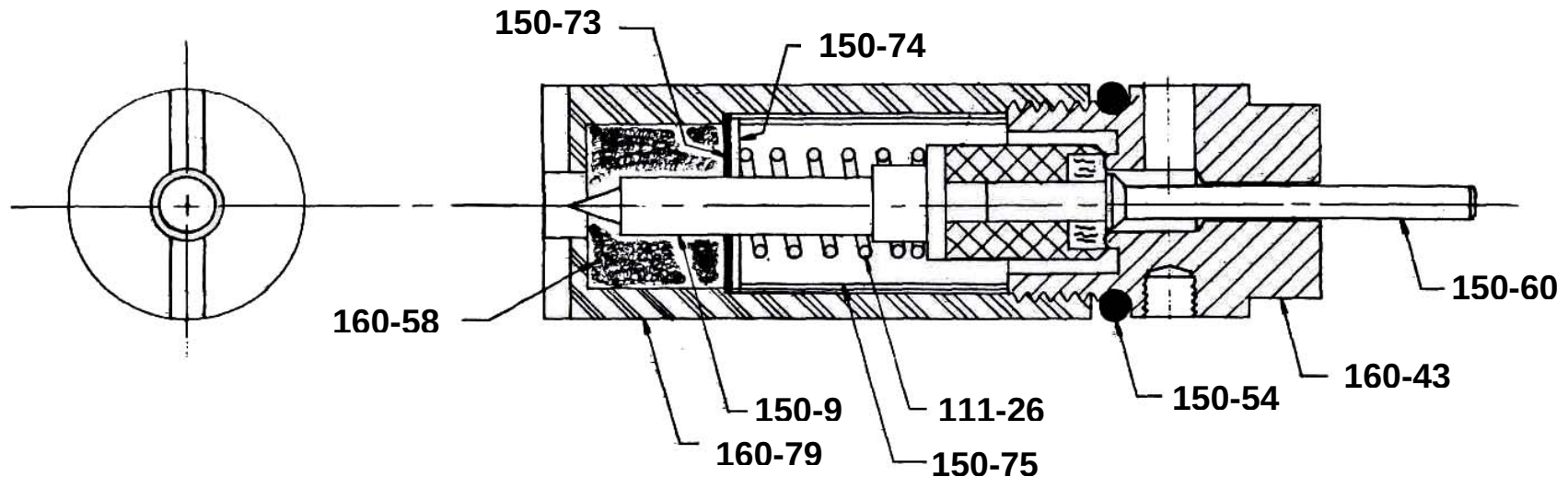
BARREL ASSEMBLY

PAGE 14.3



**NEW VALVE ASSY for MODEL 180 – 187
Sears (J. C. Higgins) #1931, 0283
with filter and mechanical seal**

**NOTE: Be sure when tightening valve in tube use
notched screwdriver to prevent damage to
Piercing pin**



**NOTE: DO NOT TIGHTEN 160-43 TO 160-79
UNTIL INSIDE TUBE**

REVISIONS TO CROSMAN PARTS LIST

Model 180 – 187 – 1931 – 0283 – 1386

Part # 180-81 Valve Ass'y replaces 180-68

Part # 160-79 Piercing Body replaces 160-59

Part # 160-43 Exhaust valve body replaces 160-41

ADDITION TO PARTS LIST

Part No.	Part Name	Price
180-81	Valve Assembly	2.80
160-79	Piercing Body	.72
160-43	Exhaust Valve Body	.36

DISASSEMBLY PROCEDURE FOR CO₂ RIFLE

1. Remove Guard Stud Screw (150-13).
Remove Stock (180-3).
2. Remove Breech Plug Screw (180-18).
Remove Breech Plug (180-17).
3. Remove Breech Bolt Screw (180-71), Breech Bolt Knob (180-70), and Breech Bolt (180-72).
4. Remove Hold Down Screw (180-12), Front Sight (160-22).
5. Loosen Strap Screw (180-22) and slide Barrel (180-73) back end off thru strap (160-11A).
Lift off Spacer (180-9) and Breech Gasket (180-57).

MODELS 180-187 (Refer to Drawings Page 14.1-2-3)

6. Remove Rear Screw (180-19) and Hammer Assembly (180-61).
7. Remove Tube Cap and Rest Block Assembly (180-64). CAUTION: Do not remove Tube Cap Assembly if Tube is under pressure. Tube Cap should be removed with fingers, DO NOT use wrench or pliers. CO₂ gas can be exhausted from Tube by pushing on Exhaust Valve Stem thru rear end of Tube.
8. Remove Valve Set Screw (160-26) and push Valve Assembly (180-63) out of Tube with a 1/8" Dia. rod using hole in Inner Plug (180-11) as a pilot.

When assembling stock to general gun assembly, Safety Bar must be on fire position, red band showing. Guard Stud Screw (150-13) must be tight to insure proper function of Safety.

REFER TO DRAWING PAGE 14.2 FOR DETAILS OF PIERCING PIN AND EXHAUST VALVE ASSEMBLY.

Inspect Exhaust Valve Gasket and metal seats for damaged surfaces, replace when necessary. Parts must be clean prior to assembling.

Rest Block "O" Ring (150-54) is a special compounded material that resists swelling under CO₂ pressure.

DISASSEMBLY PROCEDURE FOR CO₂ RIFLE - MODELS 180 – 187

Equipped With Trigger Casing Assembly

Refer to Drawing Page 8.8

1. Remove Safety Assembly (140-54) by turning to "SAFE" Position and pulling out of casing. At same time pushing on other end of bar.
2. Remove Knurled Nut from bottom of Stock and remove Stock.
3. Remove Casing Screws (140-62 and 130-31), releasing Casing from Tube.
4. Remove 2 Plate Screws (140-37) and Plate (140-40).

Adjust Weight Screw (140-39) for the desired trigger pressure. Looking thru, the hole in the side of the Trigger Casing, adjust upper Creep Screw (160-40) for the desired engagement and adjust lower Creep Screw for the desired overtravel. These are set at the factory at approximately 1/16" engagement and 1/32" overtravel. This should be done with the Casing assembled and on the gun.

To reassemble Safety, assemble gun to Stock, depress Safety Rod (140-34) with screwdriver and press Safety Assembly into place. Safety can be changed for left-handed shooters by removing the Safety Assembly and replacing with the Lever on the other side.

Refer to Page 14-A for further disassembly procedure.

NOTE: Old style triggers cannot be replaced with the Trigger Casing Assembly without extensive modification of the Hammer, Tube and Stock.

400-6 Breech Bolt Screw will be used in place of 180-71 Breech Bolt Screw after September, 1961.

CROSMAN PARTS LIST

Model 180 .22 Cal. CO₂ Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
180-1	Tube	1.45
180-3	Stock	6.55
180-4	Hammer	.48
180-5	Hammer Spring	.09
180-6	Hammer Plug	.12
180-7	Cocking Rod	.13
180-8	Spring Block	.36
180-9	Spacer	.36
180-11	Inner Plug	.40
180-12	Hold Down Screw	.50 Doz.
180-13	Locating Screw Stud	.13
180-17	Breech Plug	.32
180-18	Breech Plug Screw	.08
180-19	Rear Screw	.50 Doz.
180-20	Trigger Pin	.50 Doz.
180-22	Strap Screw	.12
180-29	Trigger	.25
180-38	Rest Block	.24
180-56	Retaining Ring	.07
180-57	Breech Gasket	.50 Doz.
180-58	Barrel Sight Assembly	6.81
180-59	Breech Bolt "0" Ring Ass'y	.60
180-62	Hammer Assembly	2.32
180-81	Exhaust Valve Assembly	2.80
180-64	Tube Cap Ass'y.	1.20
180-67	Strap & Screw Ass'y.	.51
180-70	Bolt Knob	.32
180-71	Breech Bolt Screw.	.08
180-72	Breech Bolt	.36
180-73	Barrel	6.12
180-65	Trigger Spring	.16
180-48	Trigger Plate	.56

INTERCHANGEABLE PARTS

105-39	Safety Ball	.30 Doz.
105-45	Safety Spring	.50 Doz.

Model 187 .177 Cal. CO₂ Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
180-74	Butt Plate	.48
108-57	Butt Plate Screw	.50 Doz.
111-26	Check Valve Spring	.18
111-30	Trigger Spring	.18
113-9	Safety Bar	.30
113-10	Safety Click Bushing	.24
113-11	Safety Bushing	.16
113-62	Safety Assembly	.61
130-33	Breech Bolt Seal	.12
150-9	Piercing Pin	.24
150-12	Tube Cap	.60
150-13	Guard Stud Screw	.50 Doz.
150-19A	Tube Plug	.24
150-23A	Cocking Cap	.32
150-28	#10 "0" Ring	.18
150-40A	Cocking Spring	.18
150-54	#11 "0" Ring	.32
150-60	Exhaust Valve Stem Ass'y.	.78
160-11A	Strap	.37
160-18	Trigger Guard	.16
160-20	Rear Sight	.16
160-21	Rear Sight Elevator	.12
160-22	Front Sight	.24
160-26	Valve Set Screw	.50 Doz.
160-28	Front Sight Screw	.50 Doz.
160-29	Rear Sight Screw	.50 Doz.
160-30	Trigger Guard Screw	.50 Doz.
160-41	Exhaust Valve	.36
160-42	Piercing Body	.60

REVISIONS TO CROSMAN PARTS LIST 5/22/59.

Model 180-187

Part #160-59 Piercing Body replaces Part #160-42.

Part #180-68 Valve Assembly replaces Part #180-63.

ADDITION TO PARTS LIST

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
160-57	Stop	.16
160-58	Filter	.05
160-59	Piercing Body	.72
180-66	Valve Assembly	2.80
150-73	Screen	.05

Refer to drawing Page 8.5

CROSMAN PARTS LIST

MODEL 180 - .22 caliber CO₂ RIFLEMODEL 187 - .177 caliber CO₂ RIFLE

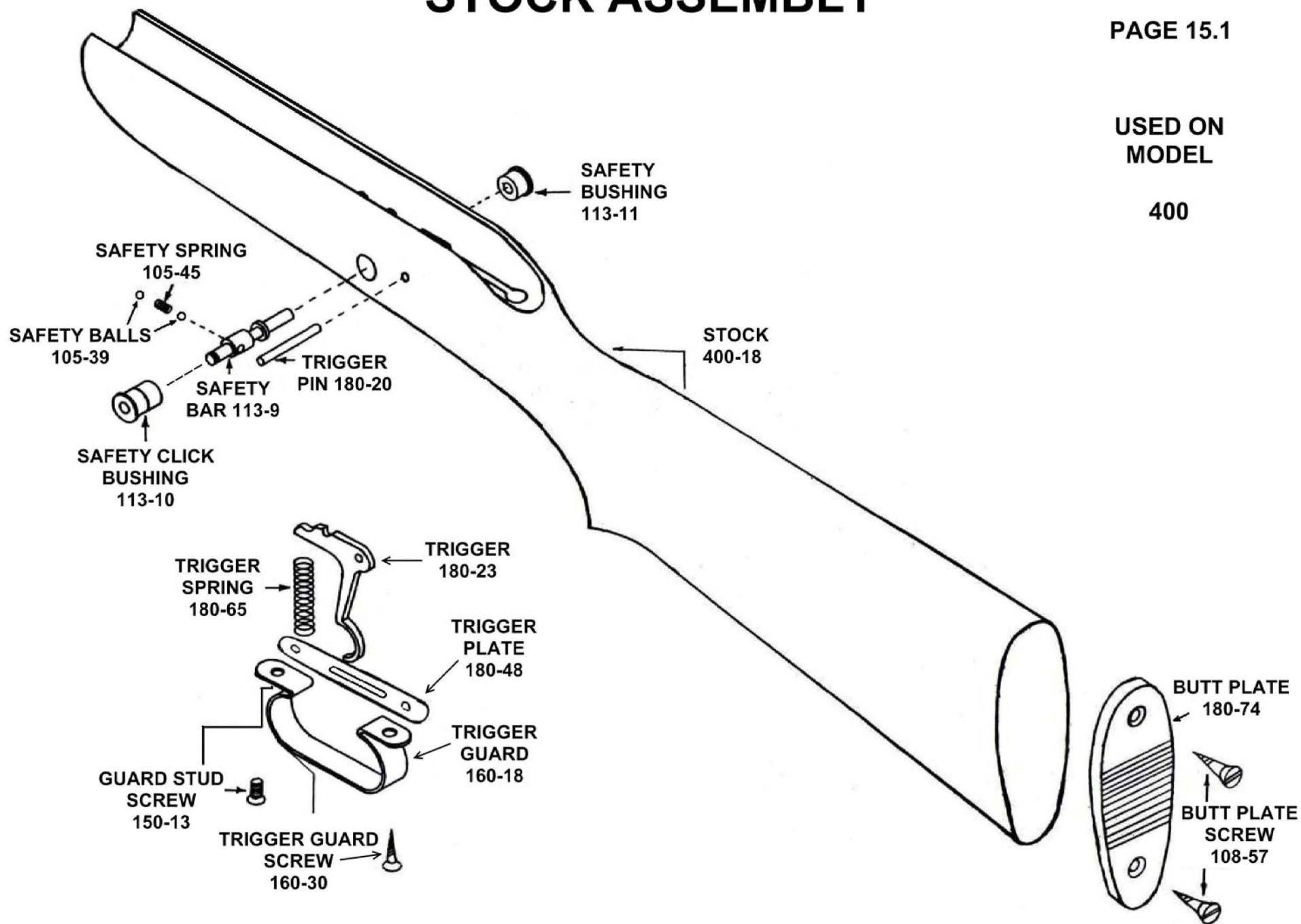
<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
180-14	Locating Screw	.27
180-15	Valve Stud	.33
180-31	Hammer	.63
180-32	Adjustment Block	.33
180-43	Adjusting Screw	.28
180-45	Cocking Cap	.46
180-46	Tube Plug	.49
180-50	Stock	6.98
180-63	Hammer Assembly	2.95
180-82	Casing Screw	.50 Doz.
160-31	Sear Spring	.08
160-38	Sear Assembly	.40
160-40	Creep Screw	.60 Doz.
160-46	Trigger	.33
160-48	Casing Assembly	1.18
140-40	Casing Plate	.40
400-6	Breech Bolt Screw	.24
130-31	Casing Screw - Rear	.50 Doz.
108-14	Locating Screw Nut	.25
140-54	Safety Assembly	.63
140-27	Safety Spring	.50 Doz.
140-28	Trigger Spring	.50 Doz.
140-37	Plate Screw	.14
140-39	Weight Screw	.08
140-34	Safety Rod	.10

STOCK ASSEMBLY

PAGE 15.1

USED ON
MODEL

400



STOCK ASSEMBLY

PAGE 15.1A
400 REPEATER

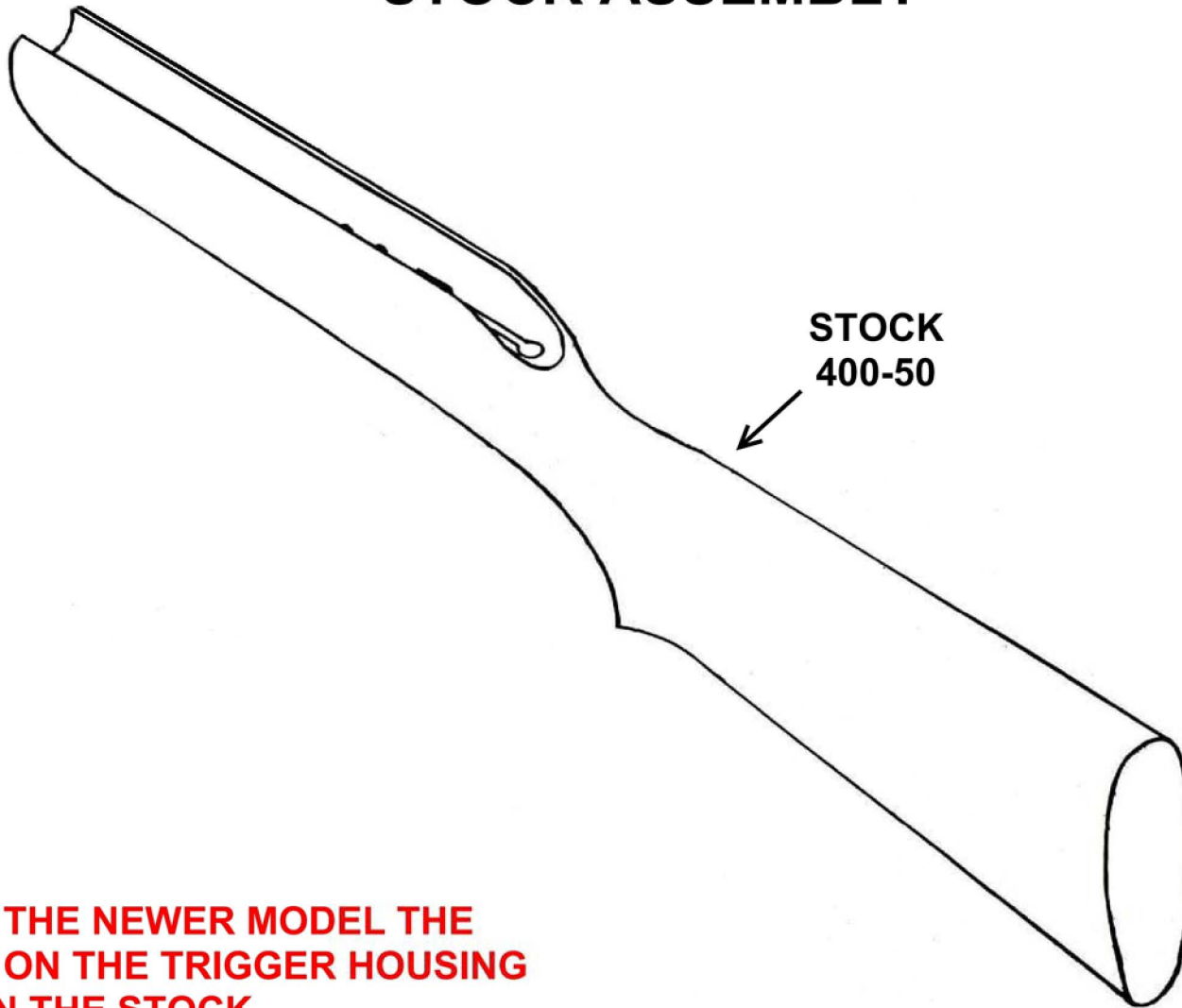
USED ON
MODEL 400
NEWEST MODEL

STOCK
400-50

BUTT PLATE
180-74

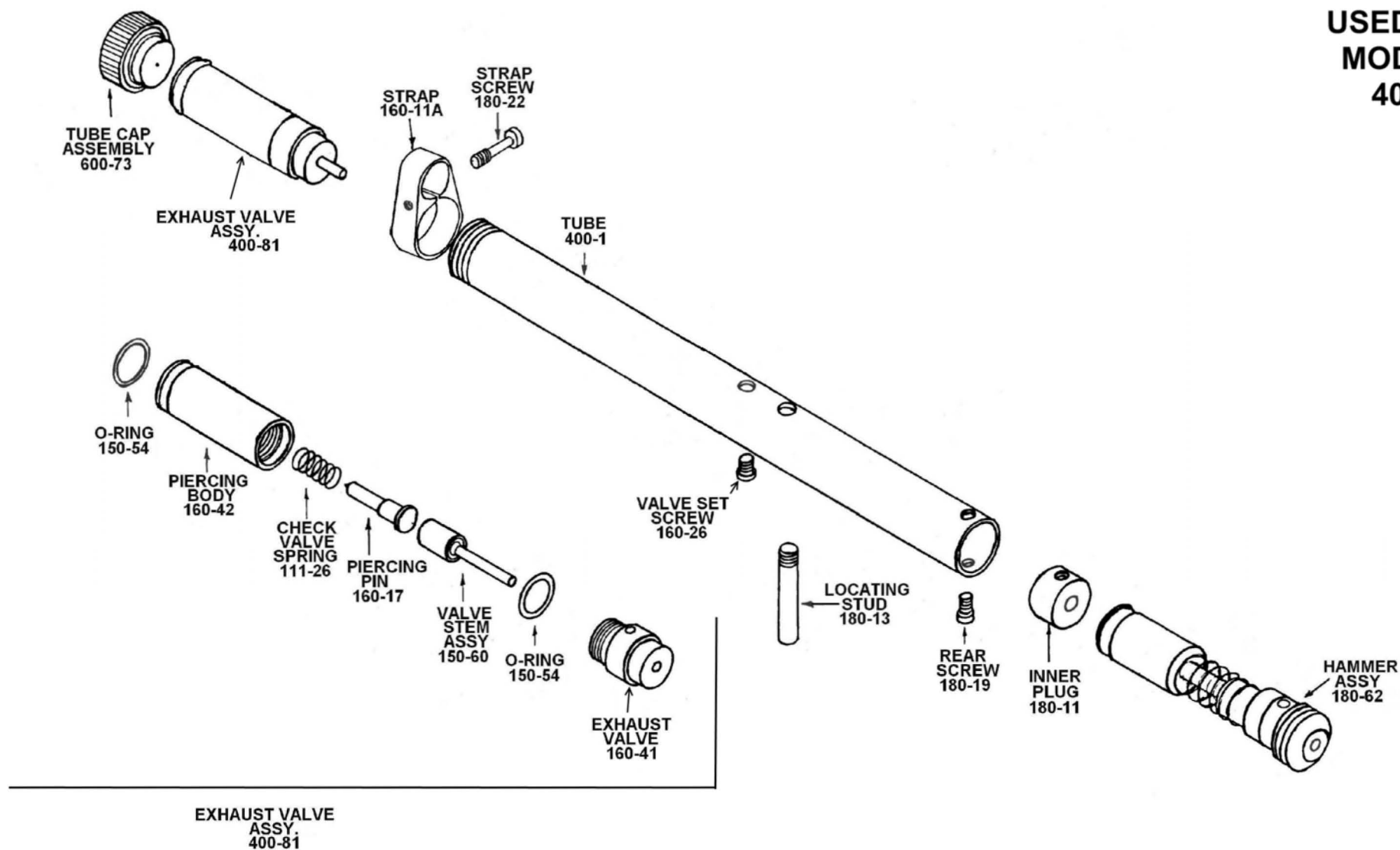
BUTT PLATE
SCREWS
108-57

**NOTE: ON THE NEWER MODEL THE
SAFETY IS ON THE TRIGGER HOUSING
AND NOT IN THE STOCK.
ALSO SOME OF THE NEWER MODELS
CAME WITHOUT THE BUTT PLATE**



TUBE ASSEMBLY

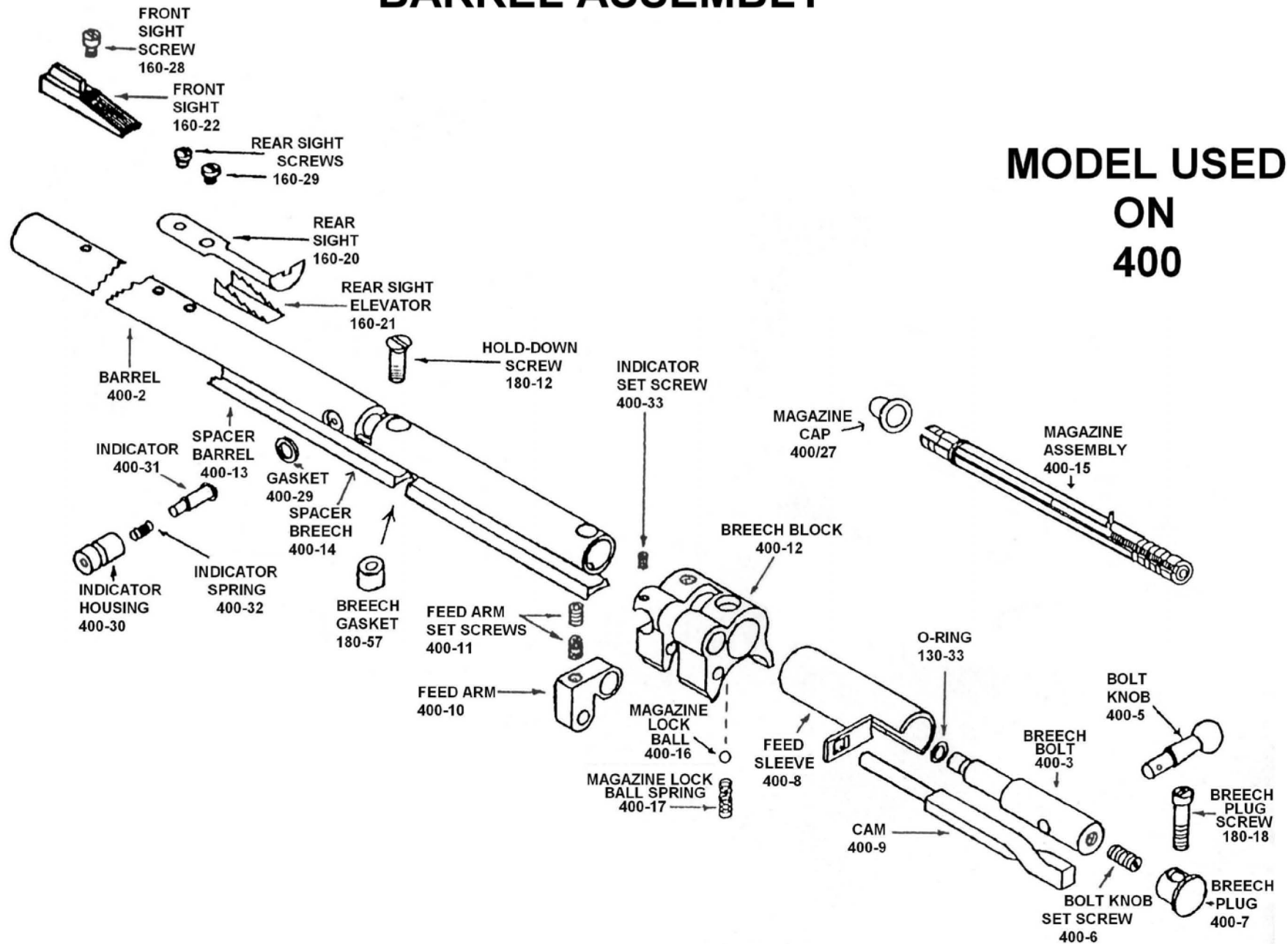
USED ON
MODEL
400



400 REPEATER BARREL ASSEMBLY

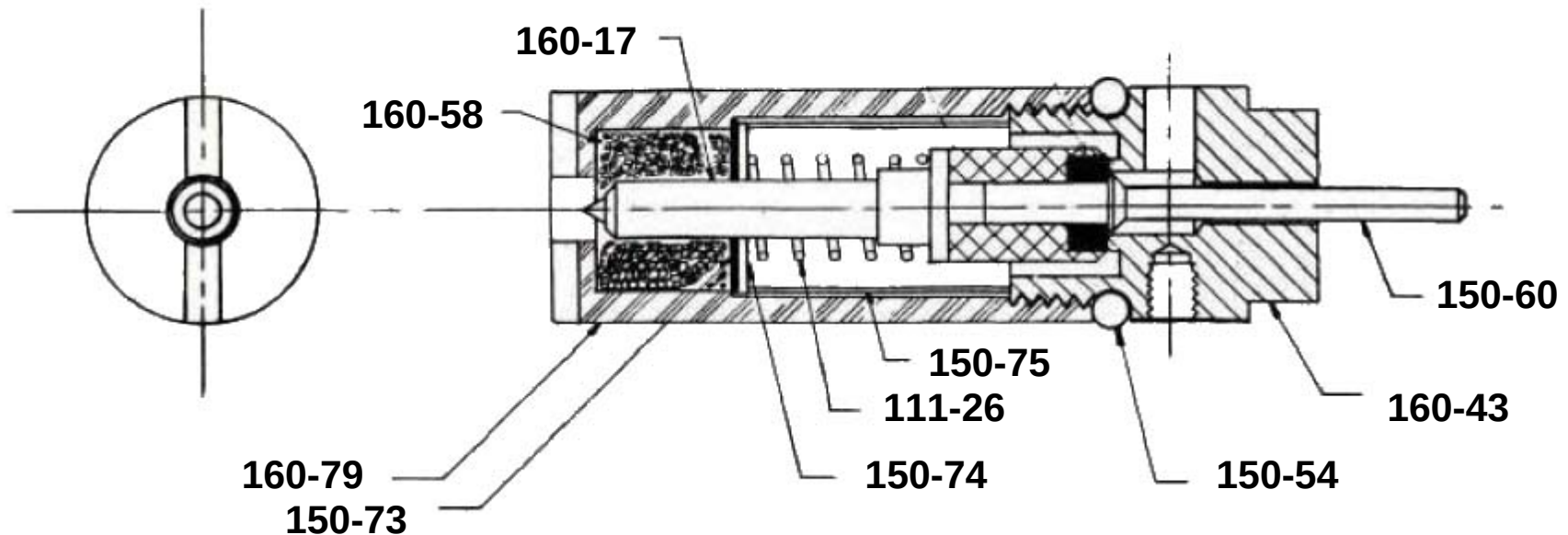
PAGE 15.3

**MODEL USED
ON
400**



NEW VALVE ASSY for MODEL 400
Sears (J. C. Higgins) 001932
with filter and mechanical seal

NOTE: Be sure when tightening valve in tube use notched screwdriver to prevent damage to Piercing pin



NOTE: DO NOT TIGHTEN 160-43 TO 160-79 UNTIL INSIDE TUBE

REVISIONS TO CROSMAN PARTS LIST

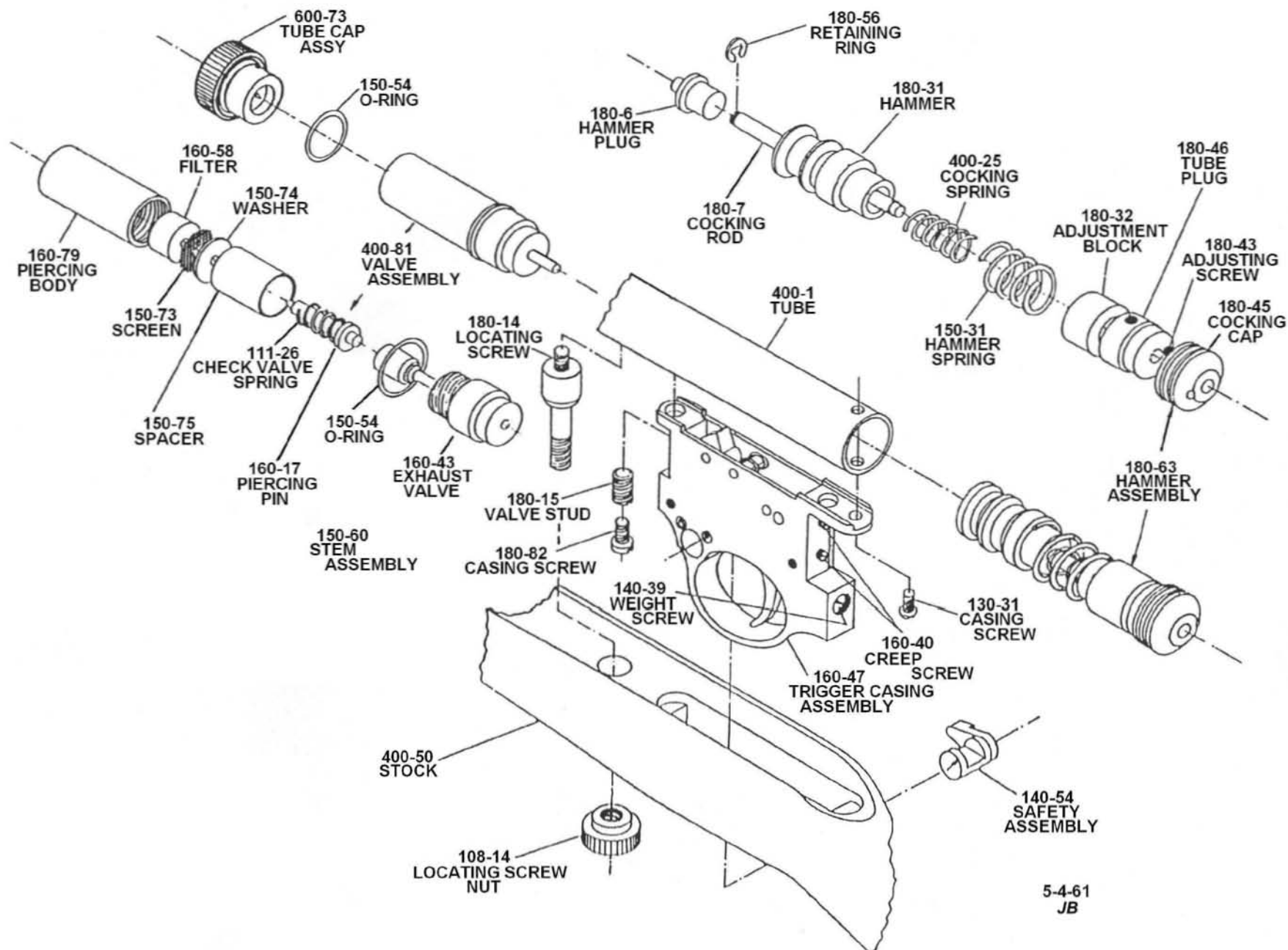
Model 400	Sears (J. C. Higgins) #01932
Part # 400-81	Valve Ass'y replaces 400-68
Part # 160-79	Piercing Body replaces 160-59
Part # 160-43	Exhaust valve body replaces 160-41

ADDITION TO PARTS LIST

Part No.	Part Name	Price
400-81	Valve Assembly	2.80
160-79	Piercing Body	.72
160-43	Exhaust Valve Body	.36

MODEL 400 REPEATER NEWER MODEL

PAGE 15.5



CROSMAN PARTS LIST

PAGE 15-A

MODEL 400 .22 CAL. CO₂ REPEATER RIFLE

<u>PART NUMBER</u>	<u>PART NAME</u>	<u>PRICE</u>
400-1	Tube	2.04
400-2	Barrel	9.20
400-3	Breech Bolt	.88
400-4	Breech Bolt Assembly	1.15
400-5	Breech Bolt Knob	.56
400-6	Bolt Knob Set Screw	.24
400-7	Breech Plug	.30
400-8	Feed Sleeve Cover	.34
400-9	Cam	.60
400-10	Feed Arm	.42
400-11	Feed Arm Set Screw	.12
400-12	Breech Block	2.82
400-13	Barrel Spacer	.30
400-14	Breech Spacer	.30
400-15	Magazine Assembly	1.40
400-16	Magazine Retaining Ball	.08
400-17	Magazine Ball Spring	.08
400-18	Stock	7.35
400-81	Exhaust Valve Assembly	2.80
400-27	Magazine Cap	.05
400-29	Gasket	.50 Doz.
400-30	Indicator Housing	.24
400-31	Indicator	.66
400-32	Indicator Spring	.08
400-33	Indicator Screw	.50 Doz.

DISASSEMBLY PROCEDURE FOR CO₂ RIFLE - MODEL 400
Equipped With Trigger Casing Assembly
Refer to Drawing Pages 15.5 - 8.8

Procedure is the same as with Model 180-187 Rifle with exception of Stock (400-50).
Refer to Pages 14-A.1 and 14-B.2

PARTS LIST

<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
400-50	Stock	6.69

All other parts of Trigger Casing interchangeable with Model 180.
See Page 14-B.2 for Parts List and Prices.

CROSMAN PARTS LIST
MODEL 400 .22 CAL. CO₂ REPEATER RIFLE

<u>PART NUMBER</u>	<u>PART NAME</u>	<u>PRICE</u>	
105-39	Safety Ball	.30	Doz.
105-45	Safety Spring	.50	Doz.
180-74	Butt Plate	.48	
108-57	Butt Plate Screws	.50	Doz.
111-26	Check Valve Spring	.18	
111-30	Trigger Spring	.18	
113-9	Safety Bar	.30	
113-10	Safety Click Bushing	.24	
113-11	Safety Bushing	.16	
130-33	#2 O Ring	.12	
150-12	Tube Cap	.60	
150-13	Guard Stud Screw	.50	Doz.
150-19A	Tube Plug	.24	
150-23A	Cocking Cap	.32	
150-28	#10 O Ring	.18	
150-40A	Cocking Spring	.18	
150-54	#11 O Ring CO ₂	.32	
150-60	Valve Stem Assembly	.78	
160-11A	Strap	.37	
160-16	Piercing Rest Block	.42	
160-17	Piercing Pin	.24	
160-18	Trigger Guard	.16	
160-20	Rear Sight	.16	
160-21	Rear Sight Elevator	.12	
160-22	Front Sight	.24	
160-26	Valve Set Screw	.50	Doz.
160-28	Front Sight Screw	.50	Doz.
160-29	Rear Sight Screw	.50	Doz.
160-30	Trigger Guard Screw	.50	Doz.
160-42	Piercing Body	.60	
600-73	Tube Cap Assembly	.78	
180-4	Hammer	.48	
180-5	Hammer Spring	.09	
180-6	Hammer Plug	.12	
180-7	Cocking Rod	.13	
180-8	Spring Block	.36	
180-11	Inner Plug	.40	

INTERCHANGEABLE PARTS :

<u>PART NUMBER</u>	<u>PART NAME</u>	<u>PRICE</u>	
180-12	Hold Down Screw	.50	Doz.
180-13	Locating Screw	.13	
180-18	Breech Plug Screw	.08	
180-19	Rear Screw	.50	Doz.
180-20	Trigger Pin	.50	Doz.
180-22	Strap Screw	.12	
180-29	Trigger	.25	
180-56	Retaining Ring	.07	
180-57	Breech Gasket	.50	Doz.
180-62	Hammer Assembly	1.98	
180-67	Strap & Screw Assembly	.51	

DISASSEMBLY PROCEDURE FOR CO₂ REPEATER MODEL 400
Refer to Drawings Page 15.1-15.2-15.3

1. Remove Guard Stud Screw (150-13) Remove Stock (400-18).
2. Remove Front Sight (160-22).
3. Loosen Strap Screw (180-22).
4. Remove Breech Plug Screw (180-18) and Breech Plug (400-7).
5. Slide Breech Bolt to Rear and Remove Hold Down Screw (180-12) thru Hole in Top of Breech.
6. Slide Breech and Barrel Assembly to Rear. Magazine Ball (400-16), Magazine Ball Spring (400-17), Breech Gasket (180-57), and Spacers (400-13), (400-14) may drop out.

TO REMOVE HAMMER AND EXHAUST VALVE ASSEMBLY REFER TO ITEM 6 - 7 - 8 PAGE 14-A UNDER MODEL 180-87

TO ASSEMBLE BARREL AND BREECH ASSEMBLY TO TUBE ASSEMBLY.

1. Clamp Tube Assembly in Vise, make sure not to damage tube.
2. Slide Barrel thru strap hole far enough to line up back of Barrel with Back of tube.
3. Turn Barrel Assembly over and insert Magazine Retaining Ball (400-16) and Magazine. Retaining Ball Spring (400-17) in hole provided. Push Spring in flush with casting. Insert pin in hole below Cam to retain Spring during Assembly.
4. Place Breech Gasket (180-57) in Gas port hole in Tube and Barrel Spacer (400-13) on Tube behind strap. Turn Barrel and Breech Assembly over and position on Tube lining up hole for Hold Down Screw (180-12). Insert and start Hold Down Screw (Do not tighten until Breech Plug Screw (180-18) is tightened).
5. Slide Breech Spacer (400-14) in place lining up hole for Breech Plug Screw.
6. Insert Breech Plug (400-7), Breech Plug Screw (180-18) and tighten. Slide Bolt to rear and tighten Hold Down Screw (180-12). Tighten strap Screw (180-22).
7. Assemble stock to General Gun Assembly, Safety Bar must be on Fire position, RED Showing. Guard Stud Screw (150-13) must be tight to insure proper function of safety.

FUNCTION OF PELL INDICATOR

1. Pell Indicator mounted on left side of Barrel at Front End of Breech Block (400-12) indicates when Pellet is in Chamber. Location of Breech Block (400-12) on Barrel (400-2) is controlled with Indicator Housing (400-30). Indicator Set Screw (400-33) must be tight.

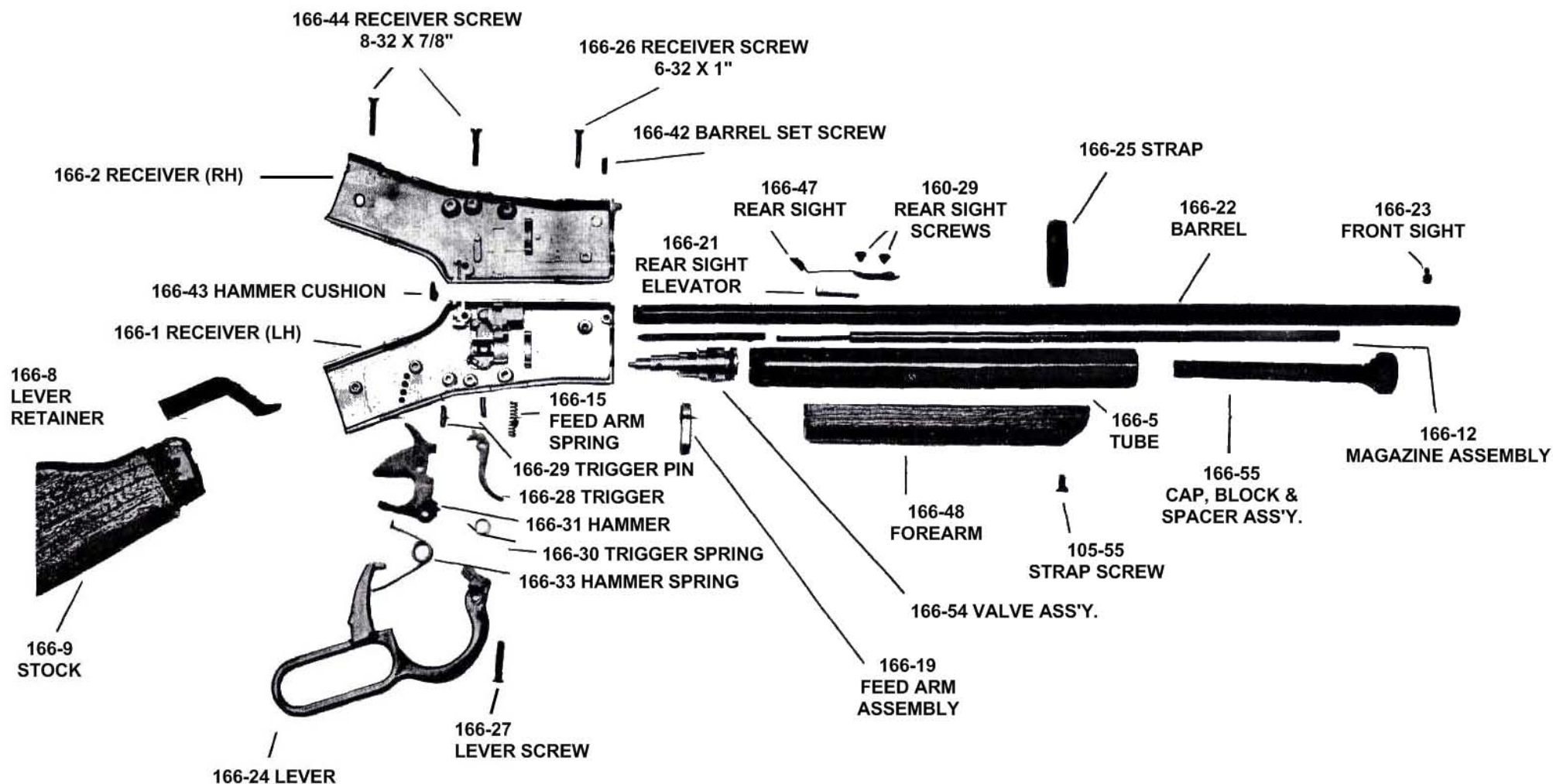
FEED ARM:

1. Feed Arm (400-10) must be tight on Cam (400-9) and lined up to work freely in slot milled in Breech Block. 2 Feed Arm Set Screws are provided for locking Feed Arm to Cam.
2. Feed Sleeve (400-8) must fit freely on Cam (400-9) and Breech Bolt (400-3) must fit freely in Breech Block (400-12) and line up with hole in Feed Arm (400-10).

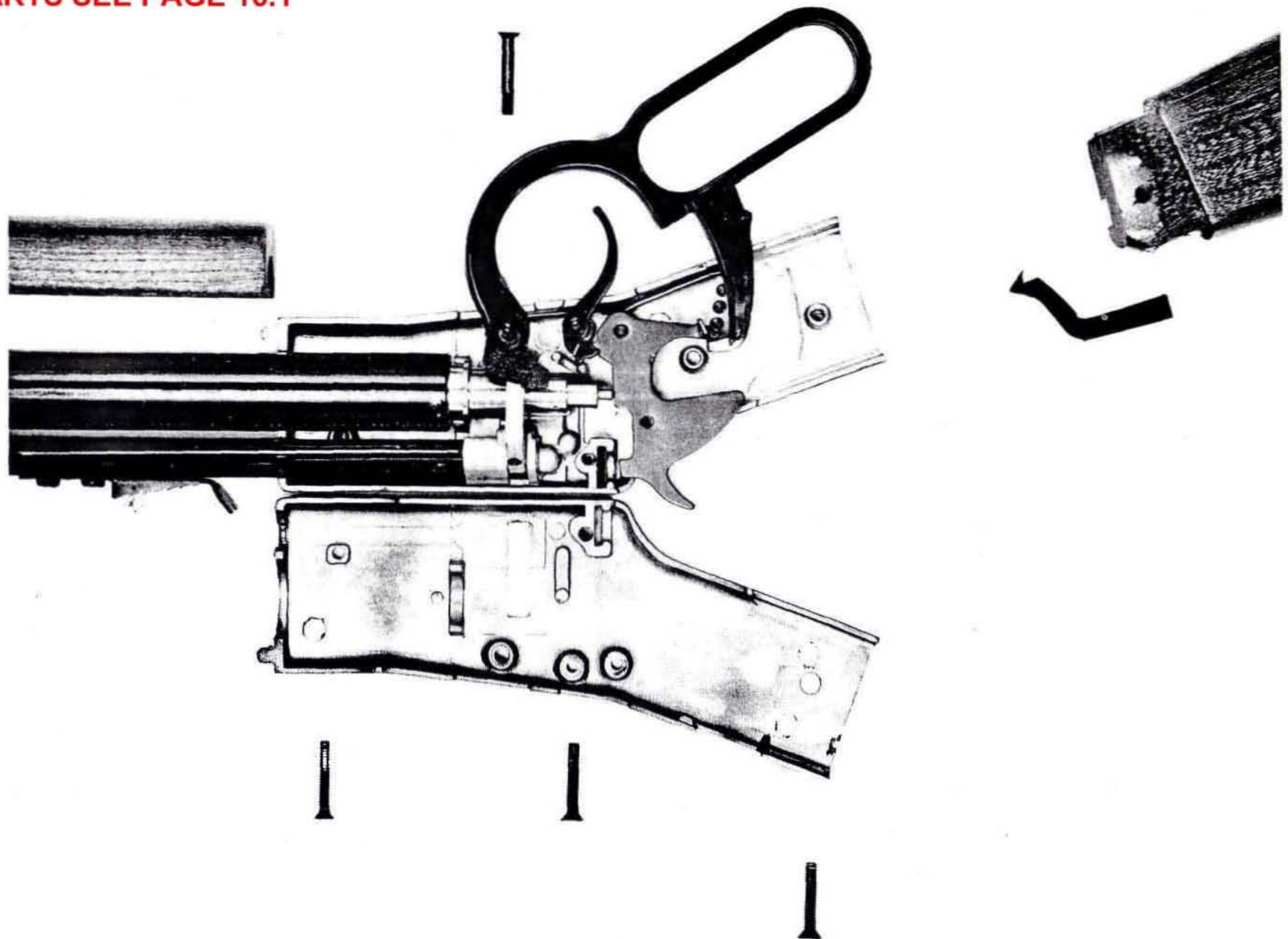
MAGAZINE ASSEMBLY:

TO REMOVE:

1. Magazine Assembly (400-15) from Breech Block (400-12) turn slot down and pull to rear.
2. To insert Magazine Assembly into Breech Block Hold Slot Down Push Forward until Ball clicks into groove. Turn Magazine to Right until slot side shows.

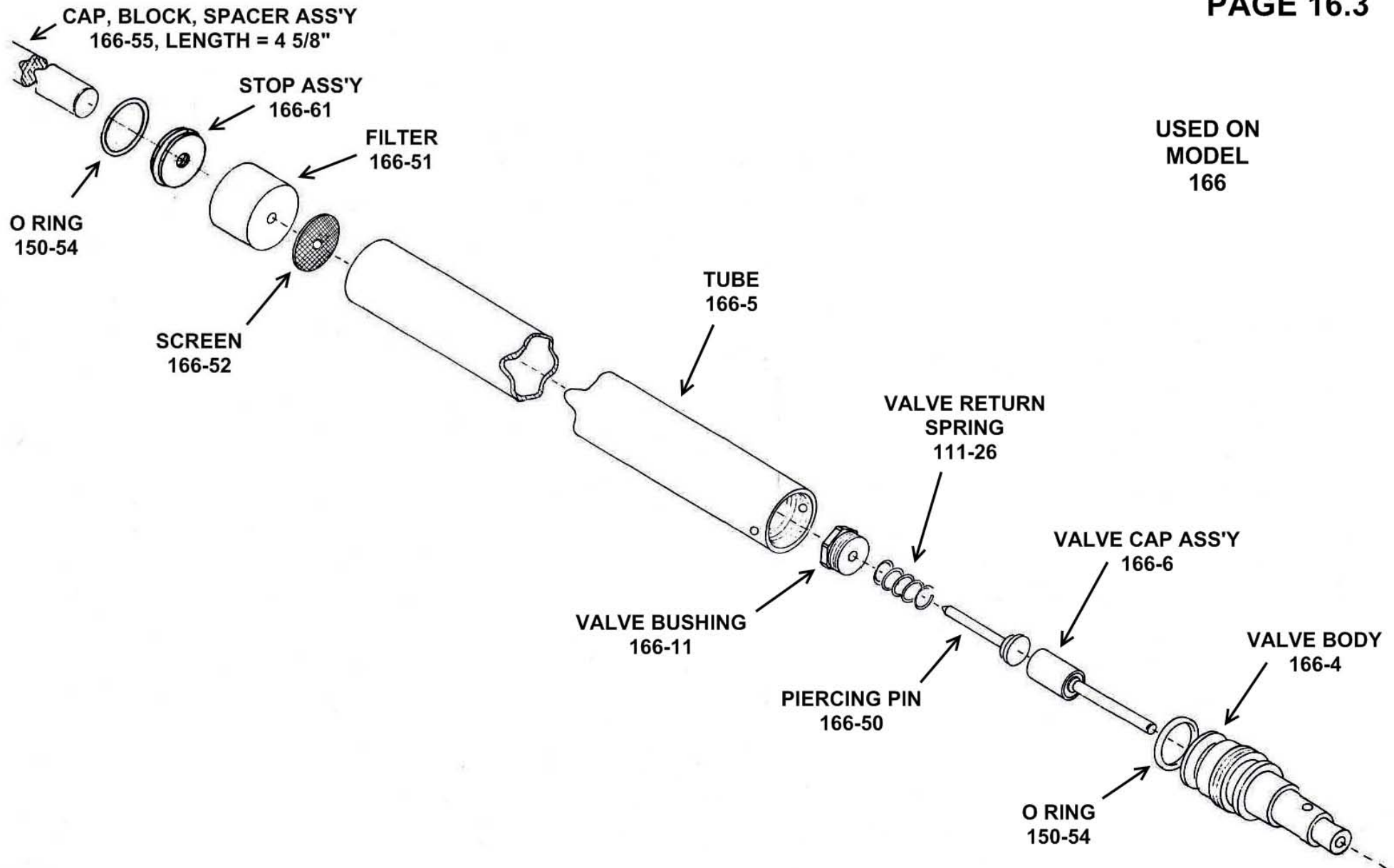


CLOSE-UP OF INTERNAL
RECEIVER ASSEMBLY
FOR PARTS SEE PAGE 16.1



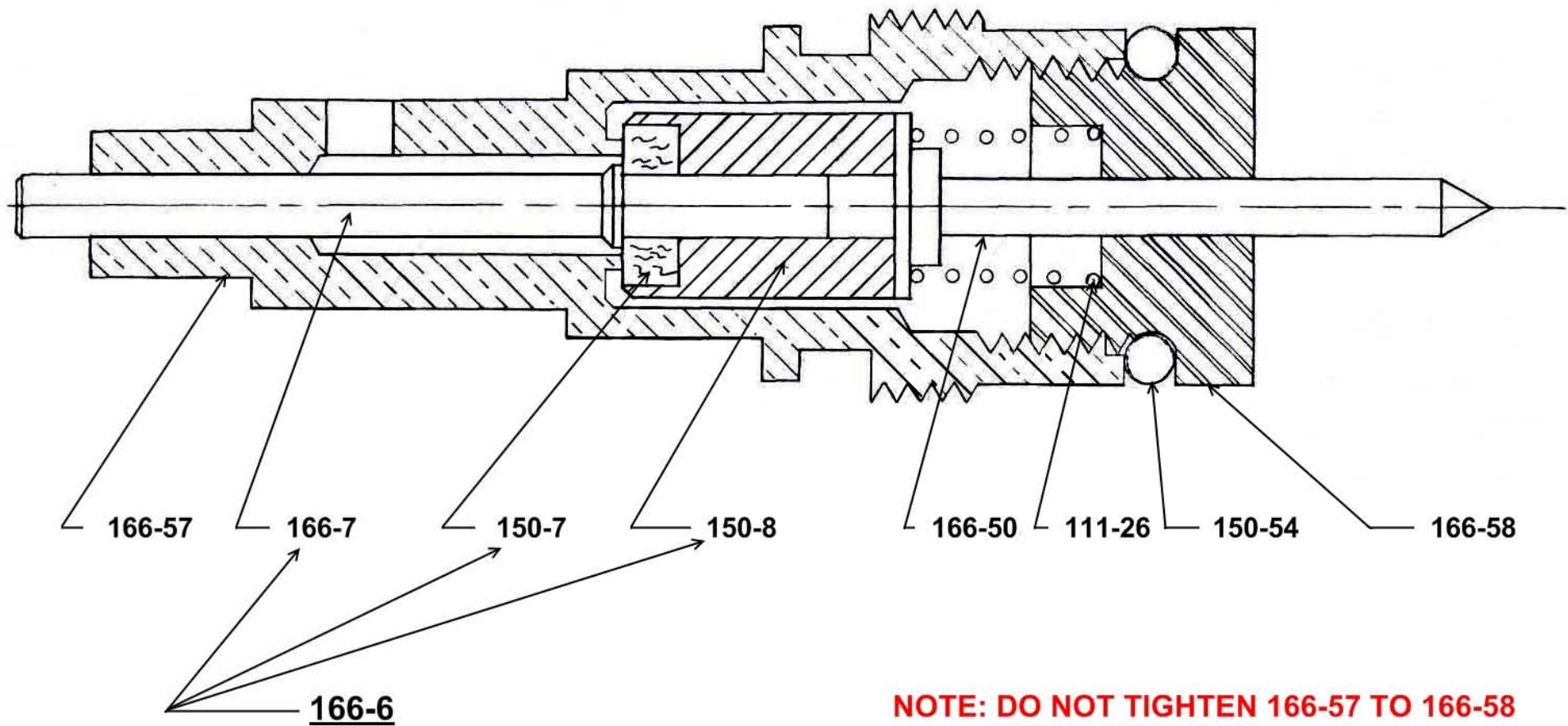
TUBE ASSEMBLY FOR CO₂ RIFLE WITH FILTER

PAGE 16.3



VALVE ASSEMBLY MODEL 166

PAGE 16.4



**NOTE: DO NOT TIGHTEN 166-57 TO 166-58
UNTIL INSIDE TUBE**

HAHN SUPER B.B. GUN PARTS LIST

Model 166 CO₂ Repeater Rifle

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>		<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
166-1	Receiver L. H.	1.88		166-4	Valve Body	1.18	
166-2	Receiver R. H.	1.73		166-40	Magazine Spring	.16	
166-54	Exhaust Valve Assy.	2.24		166-42	Barrel Set Screw	.50	Doz.
166-5	Tube	2.02		166-44	Receiver Screw	.50	Doz.
166-6	Valve Stem Assy.	.78		166-45	Retainer Bushing	.20	
166-9	Stock	2.70		166-46	Retainer Spring	.50	Doz.
166-10	Piercing Pin	.17		166-48	Forearm	1.41	
166-12	Magazine Assy.	1.70		166-8	Lever Retainer	.16	
166-13	Pusher Assy.	.20					
166-15	Feed Arm Spring	.50	Doz.				
166-55	Cap, Block, Spacer Ass'y,	1.08		130-31	Strap Screw	.50	Doz.
166-19	Feed Arm Assy.	.80		150-54	#11 0 Ring CO ₂	.32	
166-22	Barrel	3.30		166-47	Rear Sight	.16	
166-23	Front Sight	.10		160-21	Rear Sight Elevator	.12	
166-24	Lever	.94		160-29	Rear Sight Screw	.50	Doz.
166-25	Strap	.43		111-26	Valve Return Spring	.18	
166-26	Receiver Screw	.50	Doz.	166-36	Pusher Pin	.42	
166-27	Lever Screw	.21		166-37	Extension	.16	
166-28	Trigger	.13		166-41	Ball Pusher	.32	
166-29	Trigger Pin	.50	Doz.	166-61	Stop Assy.	.80	
166-30	Trigger Spring	.50	Doz.				
166-31	Hammer	.30					
166-32	#3 0 Ring	.11					
166-33	Hammer Spring	.10					
166-34	Breech Receiver Screw	.50	Doz.				
166-35	Breech Block	.89					
166-37	Pusher Extension	.40					
166-38	Magazine Tube	.40					
166-39	Lever Retainer	.20					

NOTE:

166-46 **Lever Retainer 166-8 Replaces**
166-45 **Retainer Spring**
166-39 **Retainer Bushing**
166-39 **Lever Retainer**

REVISIONS TO CROSMAN (HAHN 166) PARTS LIST

Part #166-50 Piercing Pin replaces Part #166-10.

Part #166-55 Cap, Block, Spacer Assembly, replaces Part #166-16.

Part #166-54 Valve Assembly replaces Part #166-3.

ADDITION TO PARTS LIST

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
166-50	Piercing Pin	.32
166-51	Filter	.08
166-52	Screen	.08
166-54	Valve Assembly	2.24
166-55	Cap, Block Spacer Ass'y.	1.08

NOTE: WHEN USING FILTER TYPE VALVE ASSEMBLY PART #166-54 IT IS NECESSARY TO USE CAP, BLOCK, SPACER ASSEMBLY PART #166-55. OVERALL LENGTH MUST BE 4-5/8".

CAP, BLOCK SPACER ASSEMBLY PART #166-16 MAY BE USED BY CUTTING .430" OFF SPACER LENGTH.

Refer to drawing Page 16.3

Revisions to Crosman (Hahn 166) Parts list.**Refer to Drawing Page 16. 4**

Part No.	Part Name	Price
166-6	Valve Stem Assembly	.78
166-50	Piercing Pin	.32
166-57	Valve Body	1.18
166-58	Valve Bushing	.30
111-26	Valve Spring	.18
150-54	#11 CO ₂ "O" Ring	.32

To assemble Valve Assembly 166-59 to Tube 166-5, **refer to Item No. 9 Page 16. B**

When Valve Assembly is assembled to Tube tighten Valve Bushing 166-58 with screw driver (blade should be notched for clearance of Piercing Pin 166-50) thru front end of Tube. Insert rod in exhaust hole to hold Valve in position. Hand tighten to expand "O" Ring 150-54, sealing "O" Ring to Tube wall. CAUTION: Do not damage exhaust valve stem with lineup rod when tightening bushing. Other parts of Tube Valve Assembly are shown on Page 16. 3.

**DISSASSEMBLY PROCEDURE FOR REPEATER MODEL 166
HAHN SUPER GAS POWERED BB RIFLE**

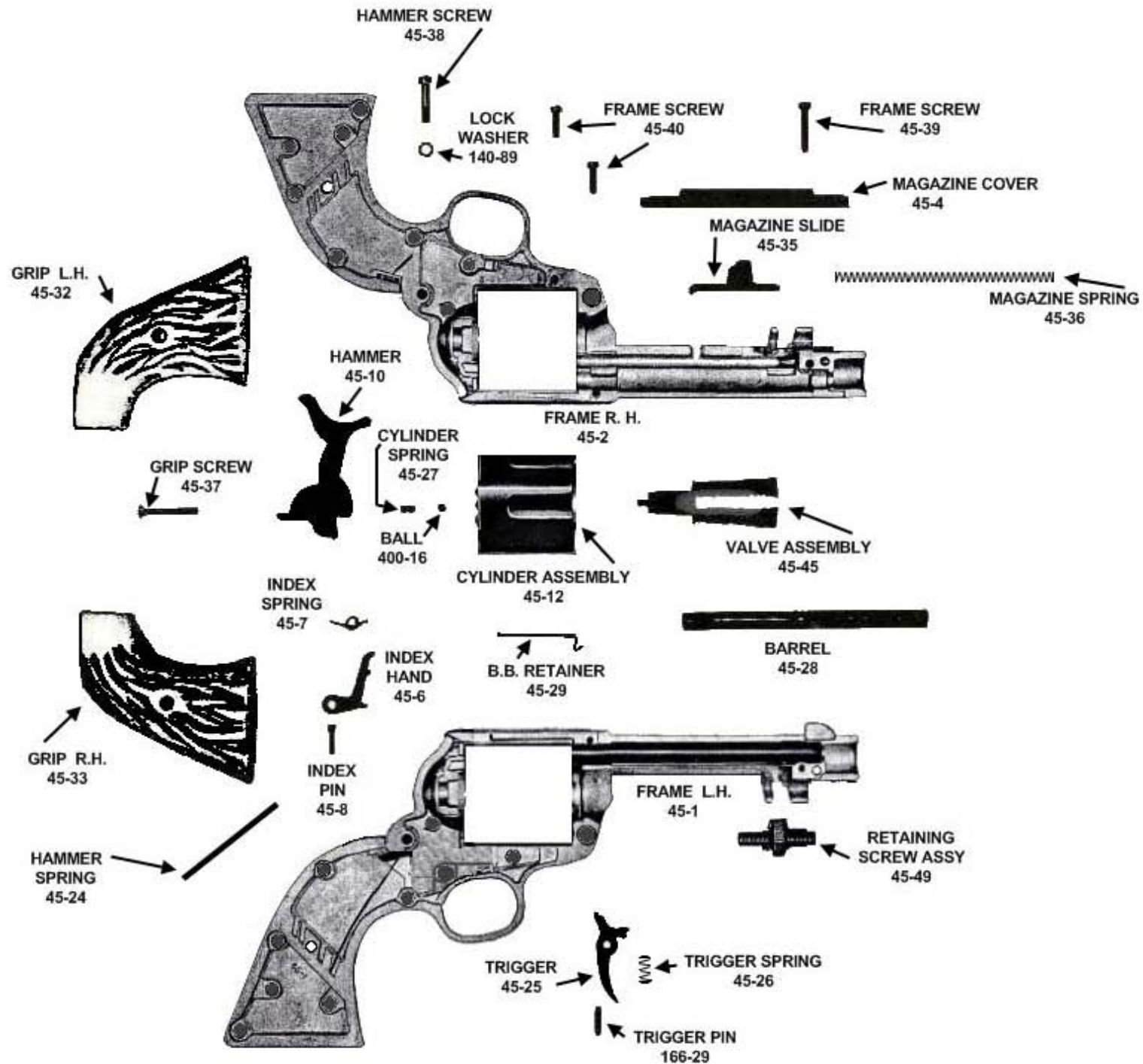
1. Remove Forearm 166-48 by removing Strap Screw, 105-55.
2. Remove Stock 166-9 by removing back Receiver Screw 166-44. When removing Stock do not lose the parts of the Lever Retainer Assembly contained in the stock, namely, Lever Retainer Spring, 166-46, Lever Retainer Bushing 166-45 and Lever Retainer 166-39.
NOTE: The parts within the two halves of the receiver are under spring tension, use caution when removing the screws and the Right Hand Receiver half so that parts do not become lost.
3. Lay the gun on a bench with L. H. Receiver 166-1 down. Retract Ball Pusher in Magazine and slide Pusher Screw 166-36 into slot as when loading Magazine.
4. Remove two Receiver Screws 166-26 and 166-44 and Lever Screw 166-27 and carefully lift off R.H. Receiver, 166-2.
5. To replace Magazine Assembly 166-12, slide out of Strap 166-25, and replace entire assembly.
6. To replace Valve Assembly 166-3, remove Feed Arm Assembly 166-19 and slide Valve and Tube Assembly out of Strap.
7. Exhaust gas remaining in Tube by pressing Valve Stem against a hard surface.. Remove Cap and Spacer Assembly 166-16, and used Powerlet.
8. Grip Valve Assembly 166-3 in smooth jaw pliers and unscrew from Tube, 166-5. *
9. Assemble new Valve Assembly to Tube with pliers. Screw into Tube until end of thread is flush with end of Tube. Line up exhaust hole in Valve Assembly with either hole in Tube.
10. Slide Tube and Valve thru Strap, replace Feed Arm Assembly on Valve.
11. Make sure #3 O Ring 166-32, is properly located in Breech Block 166-35. Locate Valve and Tube Assembly over pin in Receiver casting. Be sure exhaust hole in Valve is facing down and Tube is located on pin.
12. Replace Trigger Spring 166-30 on boss, hook spring over Trigger 166-28. Rotate Trigger approximately 1/4 turn and assemble Trigger Pin, 166-29.
13. Assemble Hammer Spring 166-33 on boss with straight end of spring against lower edge of Receiver.
14. Assemble Hammer 166-31 by catching Trigger in notch on Hammer and inserting Hammer Pin 166-29, (same as Trigger Pin). Make sure hook on spring is engaged over bottom edge of Hammer.
15. Insert an approximately 1/8" O x 1-1/2" long pin in hole for lever screw.
16. Place Lever 166-24 on pin, be sure tang on Lever is above tang on Hammer.
17. Assemble top half of Receiver, hold in place with hand, remove pin and assemble Lever Screw, 166-27.
NOTE: This is screw which has only a short threaded portion on one end.
18. Reassemble front Receiver Screw 166-26, this is a 6 x 32 screw other is an 8 x 32 screw. Reassemble center screw.
19. Test action to insure proper functioning of Lever, Hammer & Trigger before continuing. Position straight portion of Hammer Spring, 166-33, above third pin in Receiver. This adjustment is made before stock is assembled and sets power to original factory setting.

Continued on Page 16.C

CONTINUED FROM PAGE 16.B

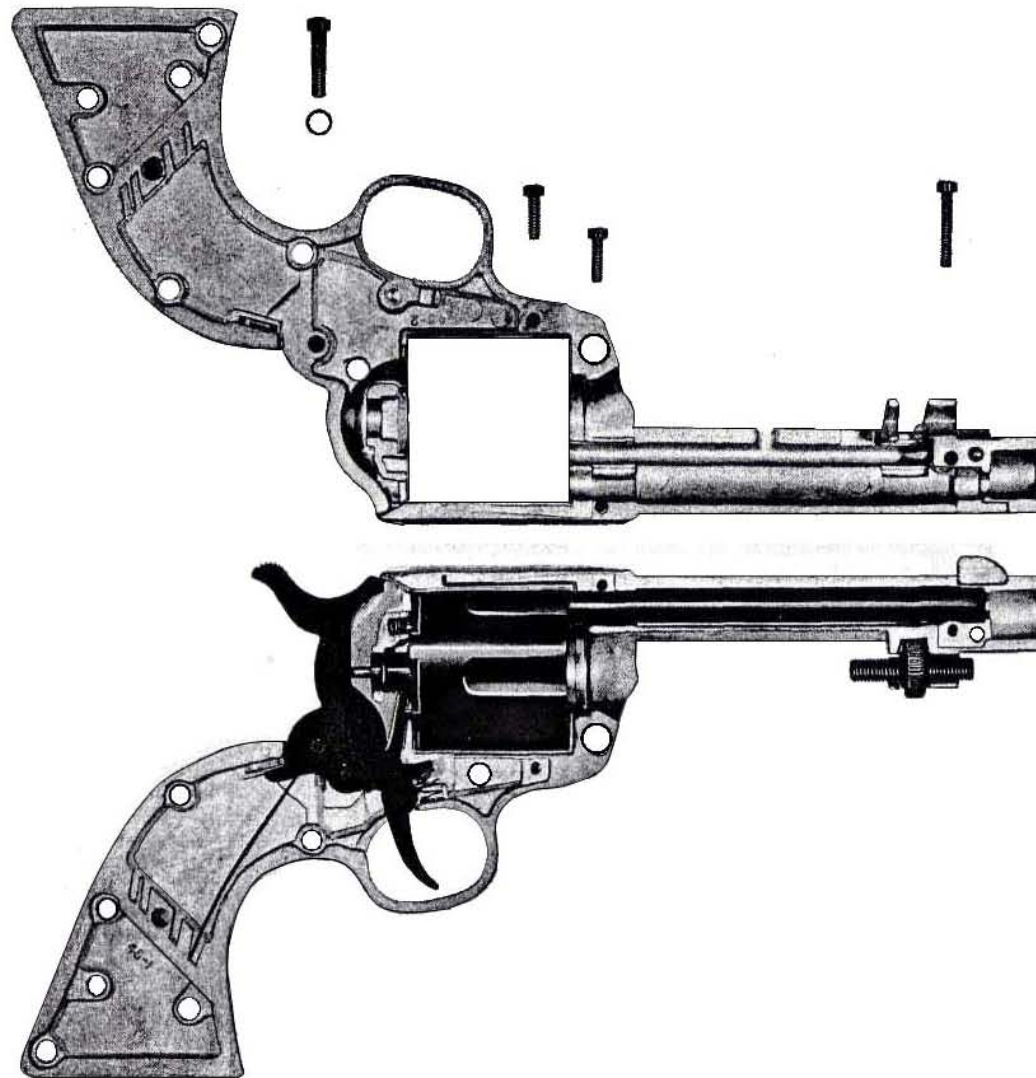
20. Reassemble Forearm, 166-48 with Strap Screw 105-55.
21. Reassemble Stock 166-9 and Lever Retainer Assembly and back Receiver Screw. (Assemble Retainer Spring 166-46, Lever Retainer 166-39, and Retainer Bushing 166-45, in that order).
22. Assemble Cap & Spacer Assembly, 166-16 and test gun.
23. To remove Barrel 166-22, Remove Rear Sight 160-20 and Rear Sight Elevator 160-21 by removing two Rear Sight Screws 160-29. Remove Barrel Set Screw 166-42 from L. H. Receiver. Remove Front Receiver Screw 166-26. Barrel may then be pulled out of Strap.
24. To reassemble Barrel 166-22, slide thru Strap into Receiver. Orient Barrel so that holes for Sight Screws are on top.
Reassemble Receiver Screw 166-26.
Reassemble Barrel Set Screw 166-42.
Reassemble Rear Sight and Rear Sight Elevator

REFER TO DRAWINGS PAGE 16.1, 16.2



HAHN "45" B. B. SINGLE ACTION REVOLVER

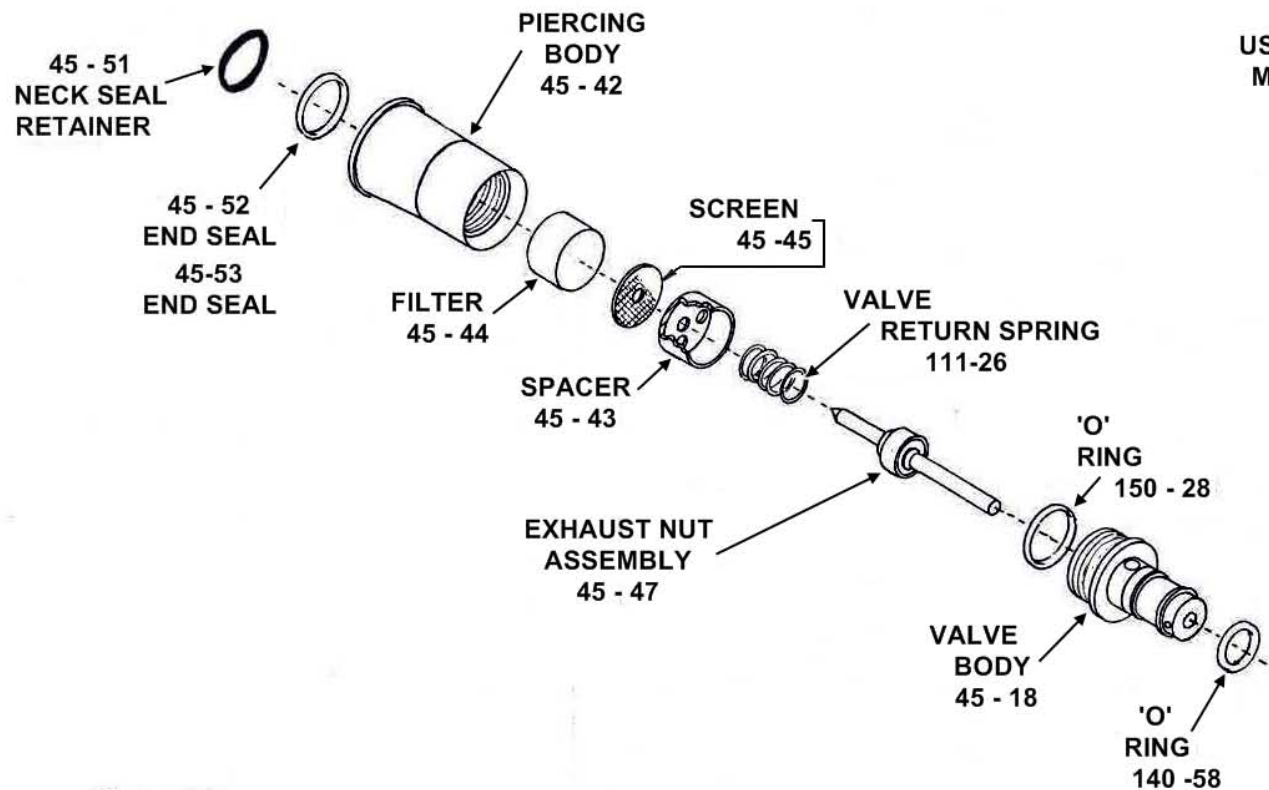
PAGE 17.2



Refer to copy page 17.A - 17.B - 17.C

PIERCING PIN & EXHAUST VALVE ASSEMBLY FOR CO₂ PISTOL WITH FILTER

PAGE 17.3



USED ON
MODEL
45
6

CEB 5 - 20 - 59

NOTE:

GUNS WITH VALVE OPENING DIMENSION OF .380 & .406
REQUIRE END SEAL PART NO. 45 - 52 (.383 O.D.) AND
RETAINER PART NO. 45 - 51

GUNS WITH VALVE DIMENSION .302 REQUIRE END SEAL
ONLY PART NO. 45 - 53.

CROSMAN PARTS LIST

Page 17.A

Model 45BB Hahn Single Action Pistol

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
45-1	Frame Left Hand	1.74	140-89	Lock Washer	.50	Doz.
45-2	Frame Right Hand	1.72	166-29	Trigger Pin	.04	
45-3	Frame Right Hand Assy.	2.10	400-16	Cylinder Ball	.08	
45-4	Magazine Cover	.06	45-49	Retaining Screw Assy.	.78	
45-5	Hammer Assy.	.60	45-51	End Seal Retainer	.02	
45-6	Index Hand	.06	45-52	End Seal	.07	
45-7	Index Spring	.04	45-53	End Seal	.06	
45-8	Index Pin	.16				
45-10	Hammer	.42				
45-12	Cylinder Assy.	2.04				
45-46	Valve Assy.	2.40				
45-16	Piercing Body	1.20				
45-18	Valve Body	.60				
111-26	Valve Return Spring	.08				
45-47	Exhaust Nut Assy.	.93				
45-24	Hammer Spring	.16				
45-25	Trigger	.14				
45-26	Trigger Spring	.06				
45-27	Cylinder Spring	.05				
45-28	Barrel	.90				
45-29	B.B. Retainer	.16				
45-30	Retaining Screw	.60				
45-31	Retaining Nut	.18				
45-32	Grip L.H.	.25				
45-33	Grip R.H.	.25				
45-34	Grip Insert	.16				
45-35	Magazine Slide	.08				
45-36	Magazine Spring	.06				
45-37	Grip Screw	.24				
45-38	Hammer Screw	.16				
45-39	Frame Screw	.12				
45-40	Frame Screw	.12				
150-28	#10 "0" Ring	.18				
140-58	#6 "0" Ring	.12				

Part # 45-42	Piercing Body replaces	Part # 45-16.
Part # 45-47	Exhaust Nut Assembly replaces	Part # 45-21.
Part # 45-41	Valve stem replaces	Part # 45-23.
Part # 45-46	Valve Assembly replaces	Part # 45-15.

ADDITION TO PARTS LIST

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>
45-41	Valve Stem	.30
45-42	Piercing Body	.95
45-43	Spacer	.05
45-44	Filter	.05
45-45	Screen	.05
45-46	Valve Assembly	2.40
45-47	Exhaust Nut Assembly	.93

Refer to drawing Page 17.3

1. Exhaust CO₂ gas and remove empty Powerlet.
2. Remove Grip Screw, 45-37 and Grip Plates, 45-32 and 45-33.
3. Support butt and muzzle ends of gun on two blocks to free cylinder. (See Illus.)
4. Place Hammer in Safety position, (half-cock)
5. Remove Hammer Screw, 45-32, two Frame Screws, 45-40 and Frame Screw 45-39.
CAUTION: Use care when removing Frame Assembly R.H., 45-3.
Parts are under spring tension and susceptible to loss.
6. Place screwdriver in slot behind Trigger and pry off Frame Assembly R.H., 45-3.
All internal parts can now be removed.

To Reassemble gun, proceed as follows:-

7. BB Retainer, 45-29, is cemented in place with Pliobond or Le Page's Liquid Solder. If Retainer is damaged or has come loose, replace if necessary and re-cement with one of the above adhesives.
8. Inspect Barrel, 45-28, for obstructions. Replace Barrel in Frame L.H. with BB Retainer in saw slot and hole in Barrel over pin on casting.
9. Assemble Valve Assembly, 45-15, to Cylinder Assembly, 45-12. Grease both parts well on bearing surfaces.
10. Install Valve and Cylinder Assemblies in casting. Spot hole in Valve fits over pin in casting.
11. Assemble Cylinder Ball, 400-16, and Cylinder Spring, 45-27. Place Ball and Spring in depression in the casting, hold Ball and Spring lightly with the thumb of left hand; rotate Cylinder forward until ball drops into a detent, continue rotating Cylinder forward until Ball raises slightly and back end of Spring drops into casting depression. Holding Ball and Spring firmly, turn Cylinder backward until Spring compresses and lies flat in the casting depression.

NOTE: Cylinder must not be moved after Ball and Spring are assembled.

12. Assemble Hammer Assembly 45-5. Index Spring must be wound to hold Index Hand against Cylinder Assembly. When assembling hold Index Hand away from indexing lugs on Cylinder Assembly so that Cylinder is not disturbed. The Hammer Assembly can be held in place by using a 1/8" diameter by 2 inch long pin inserted in the tapped Hammer Screw hole.
13. Assemble Trigger Pin, 166-29, Trigger, 45-25 and Trigger Spring, 45-26.
14. Assemble Hammer Spring-, 45-24, to lower groove in casting. Extruded end of spring in groove and extruded portion face up.
15. Assemble Retaining Screw, 45-30 and Retaining Nut, 45-31 in notch at muzzle end of gun.
16. Assemble Frame Assembly R.H., 45-3. Press halves of Frame together.
17. Assemble Frame Screws, 45-40 and 45-39. Assemble Hammer Screw 45-38 and Lockwasher 140-89.
NOTE: Tighten screw nearest BB Retainer first.
18. Assemble Grips with Grip Screw 45-37.

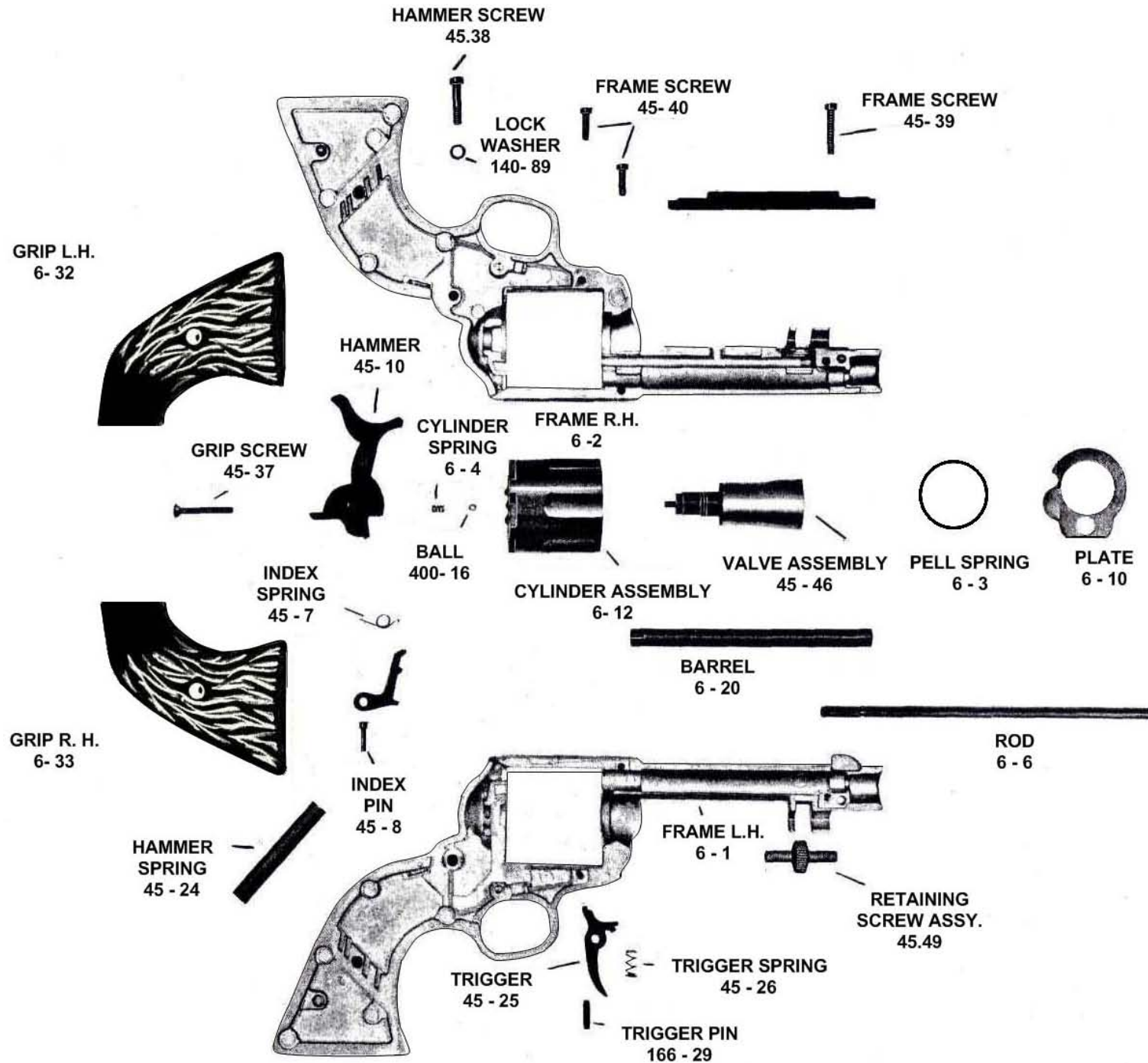
The magazine feed is staked into the Frame R.H. If it becomes necessary to service the magazine, remove as much of the staking as practical and pry out magazine cover 45-4 with a screwdriver exposing Magazine Slide 45-35 and Magazine Spring 45-36. Replace defective parts and re-stake cover with a hand punch.

After reassembly test BB Retainer for proper functioning by loading magazine and firing several BB's. Then cock gun and with muzzle pointed down shake gun. BB Should not fall out.

To repair valve assembly, disassemble valve, blow out any chips in valve and replace valve stem.

To replace "O" Ring which fits around neck of Powerlet, remove old "O" Ring with pen knife. Install new "O" Ring, 45-17, with tweezers or blunt instrument.

If the cylinder does not revolve easily after assembly, tap lightly with a rawhide mallet to properly seat cylinder.



CROSMAN PARTS LIST MODEL SINGLE ACTION 6 PISTOL

Page 18-A

<u>PART NO.</u>	<u>PART NAME</u>	<u>PRICE</u>	
6-1	Frame Left Hand	1.74	
6-2	Frame Right Hand	1.72	
6-3	Pell Spring	.24	
6-4	Cylinder Spring	.05	
6-5	Hammer Assembly	.60	
6-6	Rod	.18	
6-7	Index Hand	.06	
45-7	Index Spring	.04	
45-8	Index Pin	.16	
45-10	Hammer	.42	
6-10	Plate	.42	
6-12	Cylinder Assembly	2.70	
45-18	Valve Body	.60	
111-26	Valve Return Spring	.08	
6-20	Barrel	.96	
45-24	Hammer Spring	.16	
45-25	Trigger	.06	
45-30	Retaining Screw	.60	
45-31	Retaining Nut	.18	
6-32	Grip Left Hand	.25	
6-33	Grip Right Hand	.25	
45-34	Grip Insert	.16	
45-37	Grip Screw	.24	
45-38	Hammer Screw	.16	
45-39	Frame Screw	.12	
45-40	Frame Screw	.12	
45-42	Piercing Body	.95	
45-43	Spacer	.05	
45-44	Filter	.05	
45-45	Screen	.05	
45-46	Valve Assembly	2.40	
45-47	Exhaust Nut Assembly	.93	
150-28	#10 "O" Ring	.18	
140-58	#6 "O" Ring	.12	
140-89	Lock Washer	.50	Doz.
166-29	Trigger Pin	.04	
400-16	Cylinder Ball	.08	
45-49	Retaining Screw Assy.	.78	

DISASSEMBLY PROCEDURE FOR MODEL CROSMAN SINGLE ACTION 6 PISTOL

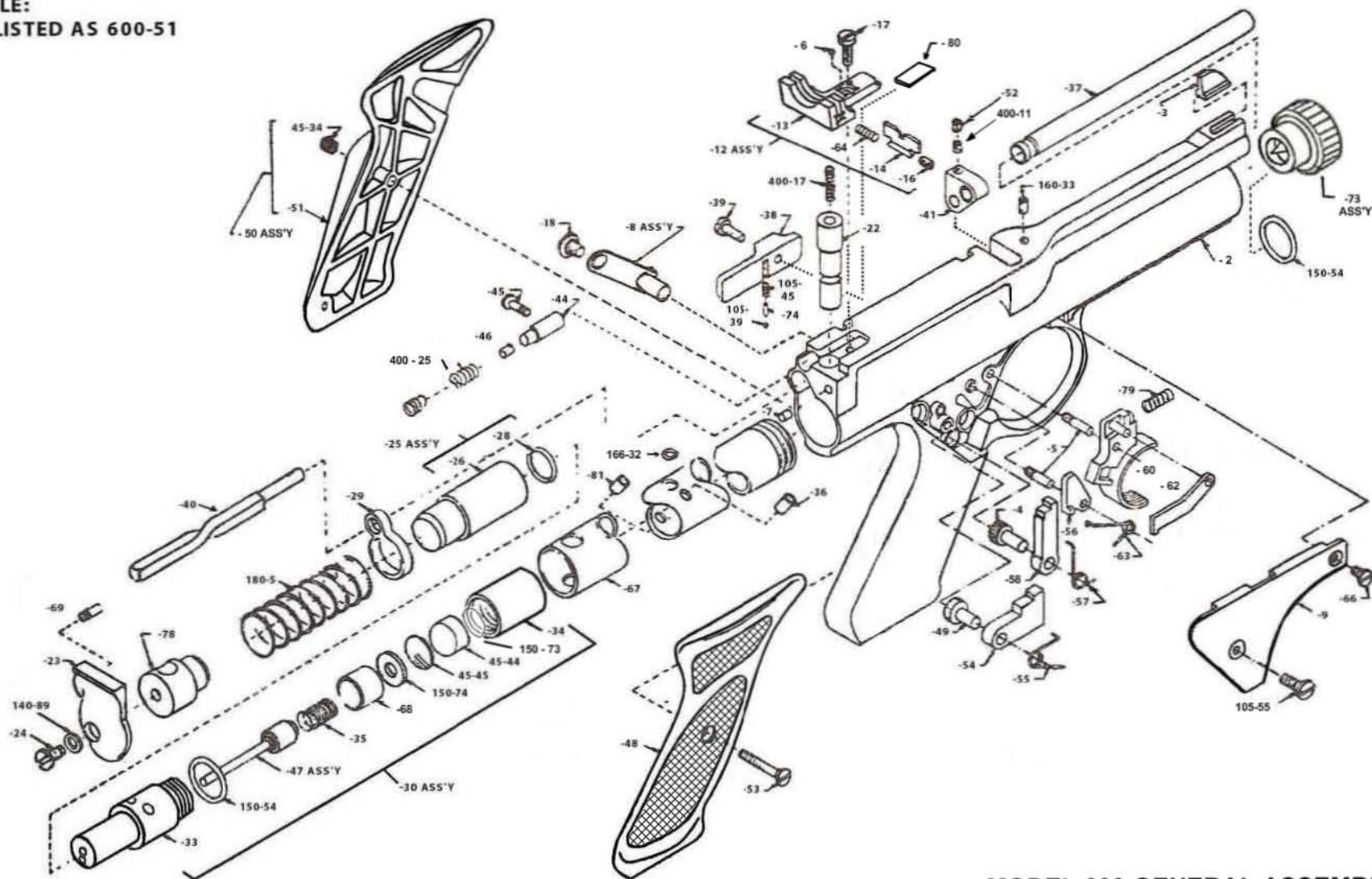
1. Exhaust CO₂ Gas and remove empty Powerlet.
2. Remove Grip Screw, 45-37 and Grip Plates 6-32 and 6-33.
3. Support Butt and Muzzle ends of gun on two blocks to free cylinder.
See Illus. Pg. 18.2)
4. Place Hammer in Safety Position. (Half-Cock).
5. Remove Hammer Screw, 45-32, two Frame Screws, 45-40 and Frame Screw 45-39.
CAUTION: Use care when removing Frame Right Hand 6-2. Parts are under spring tension and susceptible to loss.
6. Place Screwdriver in slot behind Trigger and pry off Frame Right Hand 6-2.
All internal parts can now be removed.
7. Assemble Valve Assembly 45-46 to Cylinder Assembly 6-12. Grease both parts well on bearing surfaces. Assemble Plate 6-10 over Valve and onto Cylinder.
8. Install Valve and Cylinder Assemblies in casting. Spot Hole in Valve fits over pin in casting.
9. Inspect Barrel 6-20, for obstructions. Place Barrel in Frame and locate shoulder in Cylinder Plate 6-10.
10. Assemble Cylinder Ball 400-16, and Cylinder Spring 6-4. Place Ball and spring in depression in the casting, Hold Ball and Spring lightly with the thumb of left hand; rotate Cylinder forward until Ball raises slightly and back end of spring drops into casting depression. Holding Ball and Spring firmly, turn Cylinder backward until spring compresses and lies flat in the casting depression.

NOTE: Cylinder must not be moved after Ball and Spring are assembled.

DISASSEMBLY PROCEDURE FOR MODEL CROSMAN SINGLE ACTION 6 PISTOL CONT'D.

11. Assemble Hammer Assembly 6-5. Index Spring must be wound to hold Index Hand against Cylinder Assembly. When assembling hold Index Hand away from indexing, lugs on Cylinder Assembly so that Cylinder is not disturbed. The Hammer Assembly can be held in place by using a 1/8" diameter by 2 inch long pin inserted in the tapped Hammer Screw Hole.
12. Assemble Trigger Pin, 166-29, Trigger 45-25, and Trigger Spring 45-26.
13. Assemble Hammer Spring, 45-24 to lower groove in casting. Extruded end of spring in groove and extruded portion Face Up.
14. Assemble Retaining Screw, 45-30, and Retaining Nut, 45-31 in notch at Muzzle End of gun.
15. Assemble Frame R. H. 6-2. Press halves of frame together.
16. Assemble Frame Screws, 45-40 - 45-39. Assemble Hammer Screw 45-38 and Lock Washer 140-89.
17. Assemble Grips with Grip Screw 45-37.

NOTE:
ALL DASH NUMBERS PREFIXED 600
EXAMPLE:
-51 LISTED AS 600-51



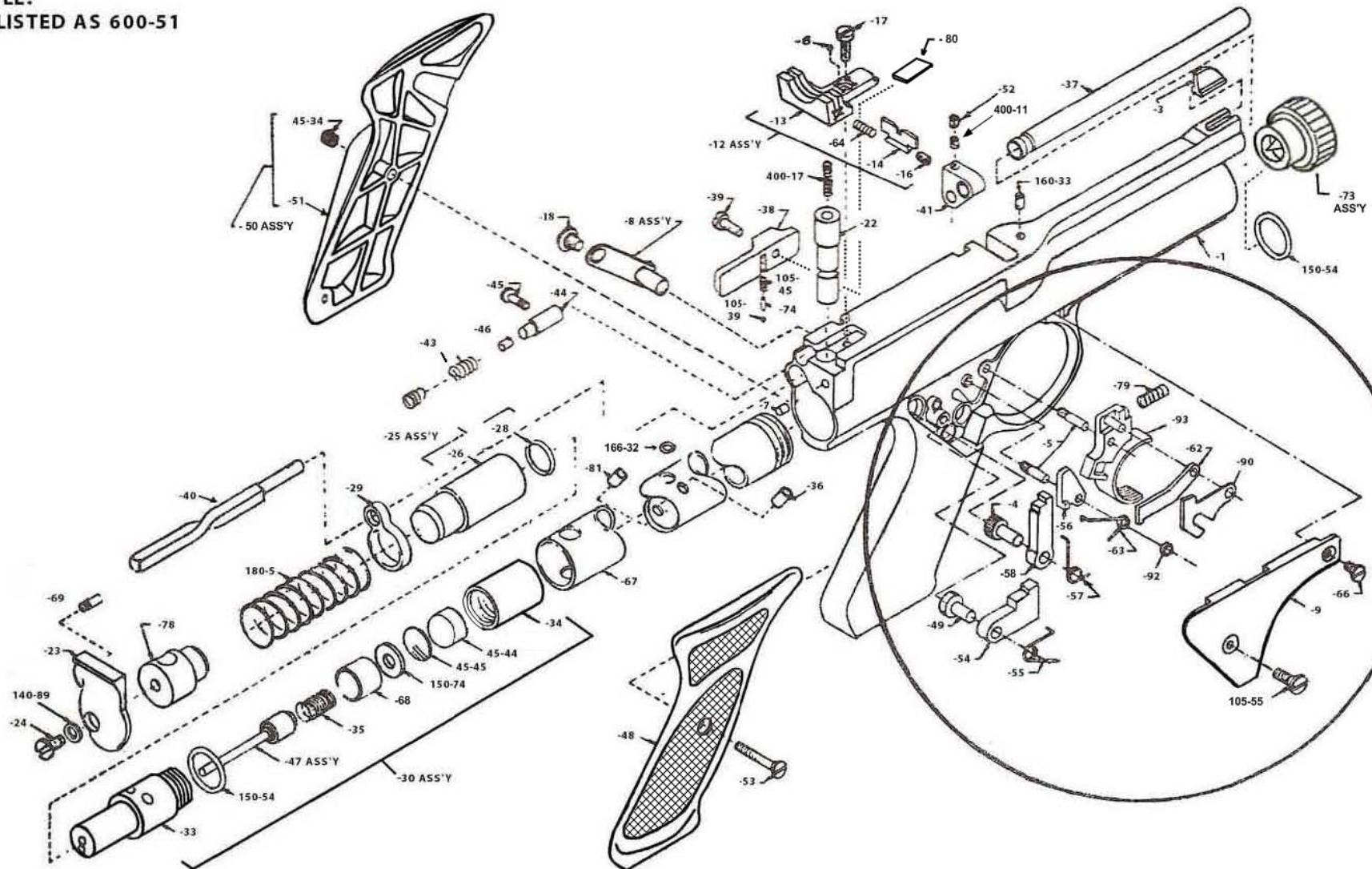
MODEL 600 GENERAL ASSEMBLY

NOTE:

ALL DASH NUMBERS PREFIXED 600

EXAMPLE:

-51 LISTED AS 600-51



MODEL "600" PARTS AND PRICE LIST FOR SERVICE MANUAL

600-2	Frame Assembly	9.70	600-41	Feed Arm	.96
600-3	Front Sight	.10	600-44	Follower	.32
600-4	Sear Pin	.11	600-45	Knob	.16
600-5	Trigger Pin (2 required)	.05	600-46	Knob Screw	.08
600-6	Sight Ball	.03	600-47	Valve Stem Assembly *	.78
600-7	Cover Pin	.04	600-48	Grip, R. H.	.30
600-8	Safety Assembly*	.36	600-49	Hammer Sear Pin	.09
600-9	Plate	.63	600-50	Grip Assembly (made of 600-51 & 45-34) (Left Hand)	.48
600-12	Sight Assembly (made of 600-13, -14, -16 & 64)	1.80	600-51	Grip, L. H. & R.H. Pair	.78
600-13	Rear Sight	.97	600-52	Feed Arm Screw	.09
600-14	Sight Blade	.16	600-53	Grip Screw	.06
600-16	Blade Screw	.24	600-54	Sear	.24
600-17	Sight Screw	.24	600-55	Hammer Sear Spring	.06
600-18	Safety Screw	.16	600-56	Pawl	.16
600-22	Cross Pin	.24	600-57	Sear Spring	.06
600-23	Cover	.36	600-58	Sear	.24
600-24	Cover Screw	.06	600-60	Trigger	.80
600-25	Hammer Assembly (made of 600-26 & 28)	.53	600-62	Link	.16
600-26	Hammer	.43	600-63	Pawl Spring	.07
600-28	'O' Ring # 2-14 Parker	.13	600-64	Sight Spring	.02
600-29	Ring	.48	600-65	Plate Screw	.07
600-30	Valve Assembly (made of 600-33, 47, 35, 68, 34, 150-54, 150-74, & 45-45)	3.67	600-66	Plate Screw, front	.06
600-33	Valve, rear	1.74	600-67	Tube	2.48
600-34	Valve, front	.60	600-68	Spacer	.08
600-35	Valve Spring	.13	600-69	Guide Pin	.07
600-81	Retainer Pin (2 required)	.10	600-73	Tube Cap Assembly *	.97
600-37	Barrel	1.76	600-74	Slide Spring Guide	.03
600-38	Slide	.80	600-78	Buffer Assembly *	1.44
600-39	Slide Screw	.04	600-79	Trigger Spring	.08
600-40	Cam	.78	600-80	Sight Pad	.05

* - Denotes factory assemblies, not to be disassembled.

MODEL "600" - INTERCHANGEABLE PARTS

45-34	Grip Insert	.16	
45-44	Filter	.05	
45-45	Screen	.05	
105-39	Ball	.03	
105-45	Spring	.04	
140-89	Washer, lock	.04	
150-54	'O' Ring	.32	
150-74	Washer	.04	
160-33	Barrel Set Screw	.16	
166-32	# 3 'O' Ring	.11	
180-5	Hammer Spring	.09	
400-11	Set Screw - Feed Arm	.12	
400-25	Magazine Spring	.23	
400-17	Spring	.08	
105-55	Plate Screen	.50	Doz.

Revision to Model 600 Parts List

<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
600-90	Stop	.38
600-92	Stop Roller	.14
600-93	Trigger Assembly	.90

The Model 600 Series Semi-Automatic Pistol Trigger section has been revised to improve Trigger and firing action. 600-90 Stop, 600-92 Stop Roller and 600-93 Trigger Assembly are the additional parts added.

Refer to Drawing Page 19.2 Circled area for assembly location of this revision.

DISASSEMBLY PROCEDURE FOR CO₂ SEMI-AUTOMATIC MODEL "600" (REFER TO DRAWINGS PAGE: 19.1)

NOTE: BE SURE UNIT IS DISARMED

1. Exhaust residual CO₂ gas by continual cocking with operating slide; if necessary, until gun is empty.
2. Insert 3/16 diameter Ramrod in Muzzle end of Barrel, to be sure of clear Barrel.
3. Insert small diameter rod in Pell aperture on left side of Frame to be sure of a clear Swing Arm.
4. Remove Tube Cap Assembly (600-73) to insure the unit is disarmed.
5. Remove Pellets from Magazine.

SIGHT ASSEMBLY

1. Unscrew Sight Screw (600-17) holding down Sight Assembly (600-12) to prevent binding on Screw.
2. Remove Sight Ball (600-6) and Pivot Sight Assembly (600-12) up above forward tongue.
3. Disassembly of Sight Assembly (600-12): Remove Blade Screw (600-16) Freeing Sight Blade (600-14) and Spring (600-64) for removal.

CAM GROUP

1. Remove Sight Assembly
2. Unscrew and remove Cover Screw (600-24) freeing Lock Washer (140-89), Cover (600-23) and Cover Pin (600-7). CAUTION: Magazine Spring may fly out.
3. Unscrew and remove Two (2) Feed Arm Screws (600-52) and (400-11).
4. Remove Cam (600-40) with slight clockwise rotation using long nose pliers or tweezers or turn the gun muzzle up and tap back of gun on bench or hand and Cam will drop out.

TRIGGER GROUP

1. Unscrew and remove Grip Screw (600-53), freeing Grips (600-48 and 51) for removal.
2. Unscrew and remove Plate Screws (105-55 and 66), freeing Plate (600-9) for removal carefully lifting with screw driver,
3. Unhook and remove Pawl Spring (600-63), Sear Spring (600-57), and Hammer Sear Spring (600-55).
4. Lift straight upward; Link (600-62), Trigger (600-60,) Sear (600-58), and Sear (600-54)
5. **NOTE:** Do Not Remove Pins (600-4), (600-5) and (600-49).
6. **NOTE:** Pawl (600-56) to be removed during the removal of Tube Group.

TUBE GROUP

1. Remove Sight Assembly Trigger Group and Cam Group.
2. Unscrew and remove Slide Screw (600-39).
3. Move Slide (600-38) rearward catching Spring (105-45) Ball (105-39) and Slide Spring Guide (600-74) on bottom side of Slide, remove Slide from gun.
4. Insert screw driver (Blade 1/2" to 11/16" wide maximum, 100 thousands thick) from front into tube to unscrew Valve Front (600-34) and remove.
5. Position gun with Grip Frame up. CAUTION: Push Cross Pin (600-22) out being careful to keep Hammer Spring under tension by holding Buffer Assembly (600-78) with thumb, release gradually.
6. Remove Buffer Assembly (600-78) and Hammer Spring (180-5).
NOTE: Do Not Disassemble Buffer Assembly.
7. Slide Tube and remaining internal parts rearward out of gun, being careful not to jam Pawl (600-56).
8. Slide Hammer (600-26) forward. Hold in this position through a slot. Slide Ring (600-29) rearward in slot to remove.

TUBE GROUP (Cont'd.)

9. Turn Ring (600-29) 90 degrees and remove from Tube, at its Rear most position
10. Slide Hammer rearward and out of tube.
11. Insert (6 x 32) Screw into Retainer Pins (600-36). Screwing the (6 x 32) Screw in, lifts Retaining Pin up and out. Remove Two (2) Retaining Pins.
12. Push Valve Assembly (600-30) forward out of Tube (600-67).
13. Unscrew and separate Valve Rear (600-33) from Valve Front (600-34) freeing Valve Stem Assembly (600-47), Valve Spring (600-35), Spacer (600-68), Washer (150-74), Screen (45-45) and Filter (45-44), for removal, if not removed by Item 4 in Tube Group.

MAGAZINE GROUP

1. Remove Sight Assembly (600-12), Cover Screw (600-24), Lock Washer (140-89) and Cover (600-23).
2. Remove Magazine Spring (400-25). **CAUTION:** Spring may fly out.
3. Unscrew Knob Screw (600-46) and remove Knob (600-45) from Follower (600-44) and slide Follower rearward out of Frame.

SAFETY GROUP

1. Unscrew and remove Grip Screw (600-53) freeing Grips (600-48) and (600-51) for removal.
2. Unscrew and remove Safety Screw (600-18).
3. Lift straight up on Safety Assembly (600-8) to remove.

BARREL

1. Unscrew and remove Set Screw (160-33).
2. Slide Barrel forward and out of frame.

FRONT SIGHT

1. Drive forward with soft punch on Front Sight (600-3);

ASSEMBLY PROCEDURE FOR MODEL "600"

ASSEMBLY PROCEDURE THE REVERSE OF DISASSEMBLY WITH SPECIAL NOTE TO THE FOLLOWING:

1. **Pre-Inspect All Seals** and replace if necessary.

TUBE GROUP, ASSEMBLY

1. Pre-assembly, Do Not Tighten, Valve Front (600-34) to Valve Rear (600-33).
2. Lubricate "O" Ring, this will aid assembly of Valve Assembly into tube.
3. Slide pre-assembled, lubricated assembly into front end of tube.
4. Align holes of Tube with holes of Valve and insert Retaining Pins (600-36). Make sure exhaust port hole in valve is in line with exhaust hole in tube. Be sure Gasket (166-32) is in tube hole.
5. Tighten Valve Front (600-34) to Valve Rear (600-33) to expand seal.
6. Slide Tube Assembly into Frame until Retaining Pin Hole in Tube lines up with hole in Frame. Make sure Pawl (600-56) is rotated up into proper slot (front bottom slot), as Tube is pushed in.
7. Lubricate Tube Cap Seal 'O' Ring with a few drops of oil or grease.
8. 'O' Ring of Hammer Assembly (600-25), MUST be dry lubricated with dry molly or graphite.
DO NOT USE OIL.
9. Outside of Hammer Assembly (600-25), should be lubricated with lubriplate grease or its' equivalent.

CAM GROUP, ASSEMBLY

1. Make sure Ring (600-29) is a good sliding fit on Cam (600-40), before assembly.
2. Make sure Hammer is in forward position.
3. Very lightly coat Swing Arm with lubriplate or equivalent good grease.
4. Insert Cam into Ring in correct position to line Drill spot up with Screw of Feed Arm when in down or fire position. Be sure Screw is in center of Drill spot before tightening. This can be done by moving Feed Arm back and forth to get feel of center.
5. This Cam must be lubricated with lubriplate or equivalent good grease.
6. Feed Arm set screws must be tight and Feed Arm must have freedom of movement when gun is in cocked position.

BARREL, ASSEMBLY

1. Slide Barrel into Frame and allow .003 thousands with a Feeler Gauge between Feed Arm and chambered end of Barrel.
2. Insert and tighten set screw (160-33).
3. Remove Feeler Gauge.

SIGHT GROUP

1. Small Sight Ball may be held in seat with small amount of grease.
2. Windage Screw (600-16) requires small amount of lubriplate on Click Grooves at base of Screw.

TRIGGER GROUP

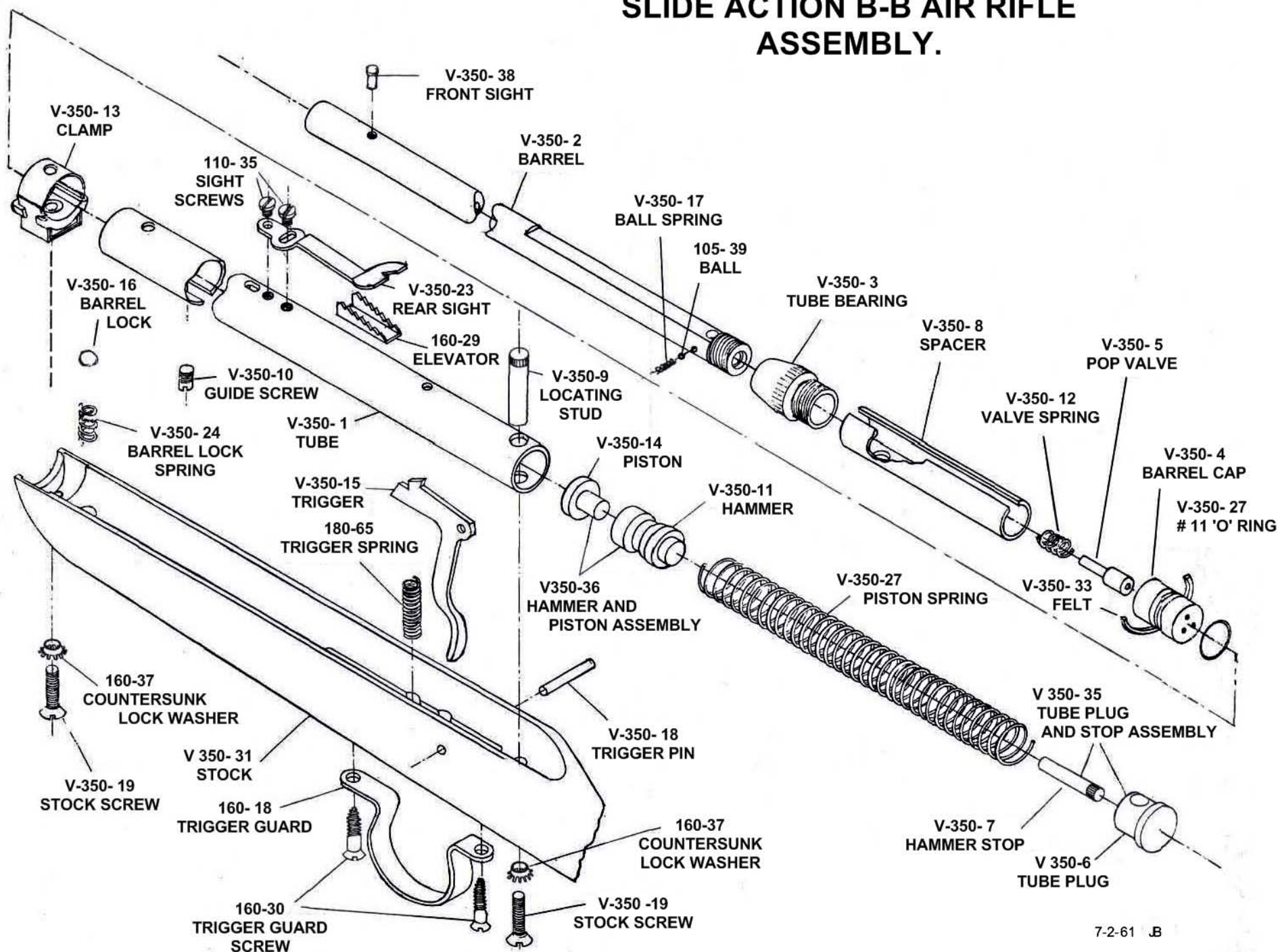
1. All Pins (600-4, 600-5 & 600-49), should be lightly coated with lubriplate, before assembly.

HELP NOTES FOR POSSIBLE MALFUNCTION AND ADJUSTMENT FOR MODEL "600"

1. Be sure Cocking Slide Is always returned to extreme forward position after cocking gun.
2. Do not at any time attempt to force swing arm with screw driver or other tools as this will cause damage to Cam Ring.
3. (A.) Feed Arm must line up with hole in Magazine. This can be checked by using a .22 caliber Pellet. Place Pellet in Magazine, cock Pistol, point Muzzle end down, Pellet should drop into Swing Arm freely. (See Item # 4 - Cam Group Assembly - Page 19 - E).

(B.) Fire Pistol so that Feed Arm is now in fire position, tap back of Cam with suitable tool and assemble and tighten Lock Set Screw (400-11).
4. When replacing Ring (600-29) or Cam (600-40), Ring and Cam Assembly must be mated to insure a smooth easy action over the twist. Apply lubriplate or equivalent.
5. If Pellet fails to feed freely out of Magazine, check Magazine Pellet Loading Aperture for possible burr caused by slamming action of Pellet Follower Knob against casting. Deburr if necessary.

V-350 SLIDE ACTION B-B AIR RIFLE ASSEMBLY.



DISASSEMBLY PROCEDURE FOR SLIDE ACTION BB AIR RIFLE

MODEL V – 350

Refer to Drawing – Page 20.1

1. Remove 2 Lock Screws (V-350-19).
Remove Stock.
Barrel Lock (V-350-16) and Spring (V-350-24) will fall out of Stock.
Clamp Tube (V-350-1) upside down in vise with protected jaws.
 2. Loosen Guide Screw (V-350-10) slightly.
Unscrew Tube Bearing (V-350-3).
Push Barrel back into Tube slightly. Hold and remove Guide Screw.
Pull Barrel Assembly out of Tube. Use care not to loose Ball Spring (V-350-17) and Ball (105-39).
 3. Drive Locating Stud (V-350-9) out of Tube. Drive on tapped end so stud is driven out thru top of Tube.
Remove Tube Plug and Stop Assembly (V-350-35) and Piston Spring (V-350-27).
Push Hammer and Piston Assembly (V-350-36) out of Tube with rod, using care not to damage Teflon Piston.
 4. Clamp Barrel (V-350-2) in vise and remove Barrel Cap (V-350-4) with snap-lock pliers.
When reassembling Barrel Cap to Barrel, secure Assembly with a small quantity of Loc-Tite Grade C Liquid Sealant. Also use a small quantity on Guide Screw (V-350-10) and Front Sight Screw (160-28).
- Lubricate Barrel Lock and Trigger with Lubriplate Grease.
- Lubricate Barrel Lock and Trigger with Lubriplate Grease.

Modification Model V-350 – Slide Action BB Rifle:

The V-350-5 Pop Valve and V-350-12A Valve Spring have been changed to improve the operation of this rifle.

The original Pop Valve Spring had a tendency to unwind and get caught between the Pop Valve and the Barrel.

This condition has been corrected by modifying the V-350-12A Valve Spring.

It now has 2 solid and larger coils at each end. The center coils are smaller in diameter allowing the Spring to hug the Stem of the Pop Valve.

The Pop Valve has been altered to reduce the shoulder height so that only the two solid coils on the spring work over the shoulder.

Fillets have been added to the corners of the Pop Valve to increase strength, preventing fracture of part.

When necessary the old Pop Valve and Valve Spring V-350-12 should be replaced with the new Pop Valve and Valve Spring V-350-12A.

Modification Model V-350 – Slide Action BB Rifle:

This modification supercedes Page 20A-1. Insert this page in manual and remove Page 20A-1.

The V350-5 Pop Valve has been redesigned to improve performance. The new Pop Valve V350-5A is an assembly, consisting of Pop Valve V350-5A and Nylon Cushion 350-39.

Broken or damaged Pop Valves must be replaced with the new design valve with cushion.

The Nylon Cushion is recessed to retain the Pop Valve Spring 350-12A.

NOTE: Before installing new Pop Valve in Barrel it is necessary to remove burr from shoulder of Barrel. A 1/4" drill is the best tool to do this operation.

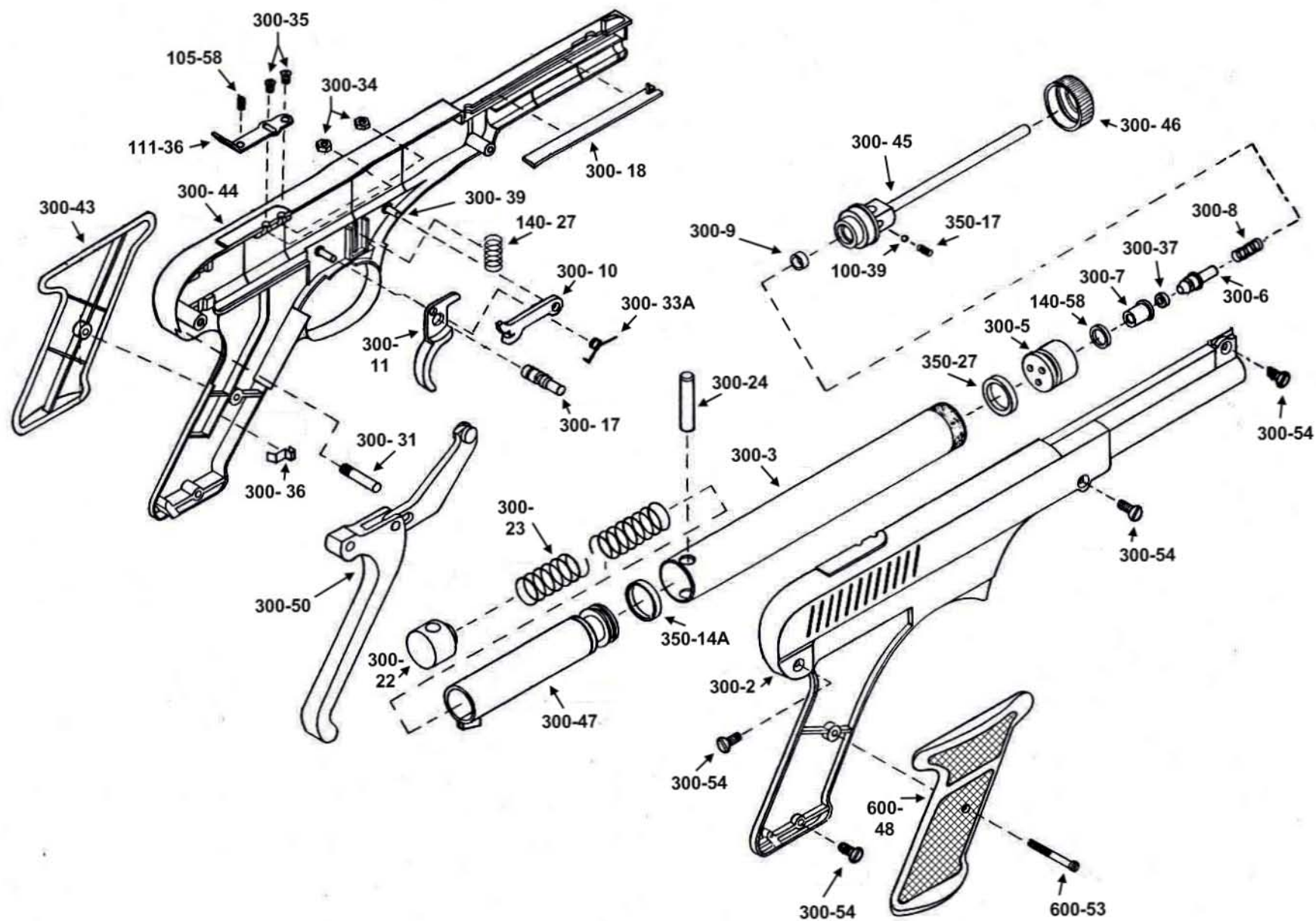
Installation is the same as previous Pop Valves - Refer to Page 20A.

NOTE: When reassembling Barrel Cap 350-4, secure assembly with a small amount of Loctite Grade C liquid sealant. Also use a small quantity on Guide Screw 350-10.

CROSMAN PARTS LIST

MODEL V-350 SLIDE ACTION BB AIR RIFLE

<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
V-350-1	Tube	3.10
V-350-2	Barrel	5.05
V-350-3	Tube Bearing	.37
V-350-4	Barrel Cap	.49
V-350-5	Pop Valve	.44
V-350-8	Spacer	.30
V-350-9	Locating Stud	.23
V-350-10	Guide Screw	.10
V-350-12	Valve Spring	.50 doz.
V-350-13	Collar	.31
V-350-15	Trigger	.30
V-350-16	Barrel Lock	.13
V-350-17	Ball Spring	.50 doz.
V-350-18	Trigger Pin	.06
V-350-19	Stock Screw	.07
V-350-23	Rear Sight	.11
V-350-24	Barrel Lock Spring	.50 doz.
V-350-25	Piston Spring	.32
V-350-27	#11 O Ring - "Buna N"	.13
V-350-31	Stock	4.50
V-350-33	Felt	.50 doz.
V-350-35	Tube Plug & Stop Assembly	.57
V-350-36	Hammer & Piston Assembly	2.00
105-39	Bail	.30 doz.
110 -35	Sight Screw	.50 doz.
160-18	Trigger Guard	.16
160-21	Elevator	.12
V-350-38	Front Sight	.24
160-30	Trigger Guard Screw	.50 doz.
160-37	Countersunk Lock Washer	.50 doz.
180-65	Trigger Spring	.16



DISASSEMBLY INSTRUCTIONS AND REPAIR PROCEDURES FOR MODEL V-300 PISTOL

Preliminary to disassembling this gun, check the three Frame Screws, 300-54 to insure that they have not become loose while the gun was being used and that the halves of the Frame are drawn tightly together. This procedure often corrects minor malfunctions such as improper feeding of the BB's and minor cocking problems. If the threads are stripped in the casting replace the self tapping screws with 180-12 Hold Down Screws.

If the malfunction persists after trying the above, disassemble the gun as follows:

1. Remove Grip Screw, 600-53, and Grips 600-48 and 300-43.
2. Remove two Rear Sight Screws 300-35.
3. Remove four Frame Screws 300-54.
4. Remove R. H. Frame 300-2.

This exposes the Sear 300-10, Sear Spring 140-27, Trigger 300-11, Safety 300-17, Safety Spring 300-33A, Lever Assembly 300-50, Lever Retainer Spring 300-36 and the Barrel and Tube Assembly. If the Sear, Trigger and Lever mechanism appear satisfactory, it will not be necessary to remove these parts and only the Tube and Barrel section need be removed as follows:

1. Remove Sear Spring 140-27, lower Sear, Lift out Tube and Barrel Assembly. (NOTE: Remove Ball 105-39 and Ball Spring 350-17 which are used to retain BB).

To disassemble Tube and Barrel Assembly proceed as follows:

1. Apply pressure on End Plug 300-22 and push out End Plug Pin 300-24 with an undersize pin. (NOTE: End Plug is under heavy spring pressure and extreme care must be used in releasing the End Plug Pin and End Plug).
2. Remove End Plug 300-22 and Plunger Spring 300-23.
3. Check movement of Hammer Sleeve Assembly 300-47 in Tube 350-3. The Hammer Sleeve should move freely and not bind until a point of resistance is reached where compression begins. This operation can be done by moving the Hammer Sleeve by hand, using the tong on the Hammer Sleeve.
4. While moving the Hammer Sleeve by hand, with the tong, check the action of the Pop Valve 300-6 by looking into the BB entry hole. The end of the Pop Valve should appear in the BB hole after the pressure reaches a certain point. This is an indication that the Pop Valve Assembly is working properly and no further disassembly is necessary.

If the stem of the Pop valve fails to appear, the condition of the Teflon Ring 350-14A on the Hammer Sleeve Assembly 300-47 should be checked for scratches or nicks. If the Teflon Ring is Defective, the Hammer Sleeve Assembly should be replaced and the POP Valve Assembly tested again as above.

If the Pop Valve Assembly still does not operate properly, the Pop Valve Assembly must be checked as follows:

1. Place the End Plug Pin hole in the Tube over a pin held in a vise; then using snap lock pliers, remove the knurled Barrel Retainer 300-46. This permits removal of the Barrel and Pop Valve Assembly.
2. Lock the Barrel and Pop Valve Assembly in a vise on the flat: remove Valve Cap 300-5 using snap lock pliers.
3. Remove Valve Spring 300-8, Valve 300-6 with Quad Ring 300-37 and Valve Sleeve 300-7. Replace any defective parts. Pop Valve and Quad Ring should work easily in Valve Sleeve 300-7 and Valve Sleeve should not bind in Valve Cap 300-5.

To reassemble valve, place Valve Sleeve and Pop Valve in the Valve Cap. Hold the Pop Valve firmly and blow into the three holes in the Valve Cap to insure that the air does not bypass.

Reassemble the gun as follows:

1. Degrease the threads on the Valve Body 300-4 and the Valve Cap 300-5, apply Loctite Grade C to the threads on the Valve Body and screw the Valve Cap tightly to the Valve Body. (Note: Valve Sleeve 300-7, Pop Valve 300-6 with Quad Ring 300-37 and Valve Spring 300-8 must be assembled to the Valve Cap prior to this assembly).
2. Degrease threads on Tube 300-3 and Barrel Retainer 300-46. Apply Loctite Grade C to the threads on the Tube. Assemble Barrel and Valve Assembly to the Tube, screw on Barrel Retainer but do not tighten. Place End Plug Pin hole in Tube over pin held in vise with the solid side of the Tube up. Line up BB hole in the Valve Body with the pin hole in the top of the Tube and tighten the knurled Barrel Retainer with snap lock pliers. (Note: It may be necessary to use an open end wrench to maintain alignment of holes when tightening the Barrel Retainer).
3. Reassemble Hammer Sleeve Assembly 300-47 to Tube. (Use care in this assembly to avoid damaging the Teflon Ring).
4. Assemble Plunger Spring 300-23 and End Plug 300-22. Press against a hard surface and insert End Plug Pin 300-24 so that it extends an equal distance from either side of the Tube.
5. Assemble Tube and Barrel Assembly to L. H. Frame, insert BB Retaining Ball 105-39 and Ball Spring 350-17.
6. Reassemble Sear Spring 140-27.
7. Assemble R. H. Frame 300-2 and four Frame Screws 300-54.
8. Reassemble Grips and Grip Screw.
9. Test

CROSMAN PARTS LIST **MODEL V-300 SLIDE ACTION BB PISTOL**

PART NO	PART NAME	PRICE	PART NO	PART NAME	PRICE
300-1	Frame Left	3.42	300-36	Lever Retaining Spring	.04
300-2	Frame Right	2.22	300-37	Quad Ring	.20
300-3	Tube	1.50	300-39	Sear Pivot	.06
300-5	Valve Cap	.36	300-42	Grip L. H.	.30
300-6	Valve	.54	300-43	Grip Assembly	.48
300-7	Valve Sleeve	.21	300-44	L. H. Frame Assembly	3.78
300-8	Valve Spring	.05	300-45	Valve Body Assembly	2.42
300-10	Sear	.36	300-46	Barrel Retainer	.26
300-11	Trigger	.21	300-47	Hammer Assembly	1.75
300-17	Safety	.36	300-50	Lever Link Assembly	2.27
300-18	Slide	.08	300-54	Frame Screw	.05
300-22	End Plug	.33			
300-23	Plunger Spring	.33			
300-24	End Plug Pin	.10	350-14A	Teflon Ring	
300-33A	Safety Spring	.06			
300-34	Sight Nut	.02			
300-25	Sight Screw	.04			

Interchangeable Parts

45-34	Grip Insert	.16
105-39	Ball	.03
105-58	Sight Elevating Screw	.04
111-36	Rear Sight	.25
140-27	Sear Spring	.03
140-58	#6 "O" Ring	.12
350-17	Ball Spring	.04
350-27	#11 "O" Ring	.13
600-48	Grip, R.H.	.30
600-53	Grip Screw	.06

Model 677 Plink-0-Matic BB Pistol - Parts and Price List

<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
677-1	Frame Assembly	9.70
677-2	Feed Spacer	. 18
677-4	Magazine Tube	.30
677-7	Magazine Spring	.23
677-15	Eyelet	. 12
677-37	Barrel	1.76
677-41	Feed Arm	.96
677-44	Ball Follower	.32
677-46	Follower Screw	.08
677-48	Grip R.H.	.30
677-50	Grip Assembly	.48

All other parts interchangeable with Model 600.

See Page 19. A

Feed Spacer 677-2 is assembled in Loading Slot between Feed Arm and Chamber end of Barrel.

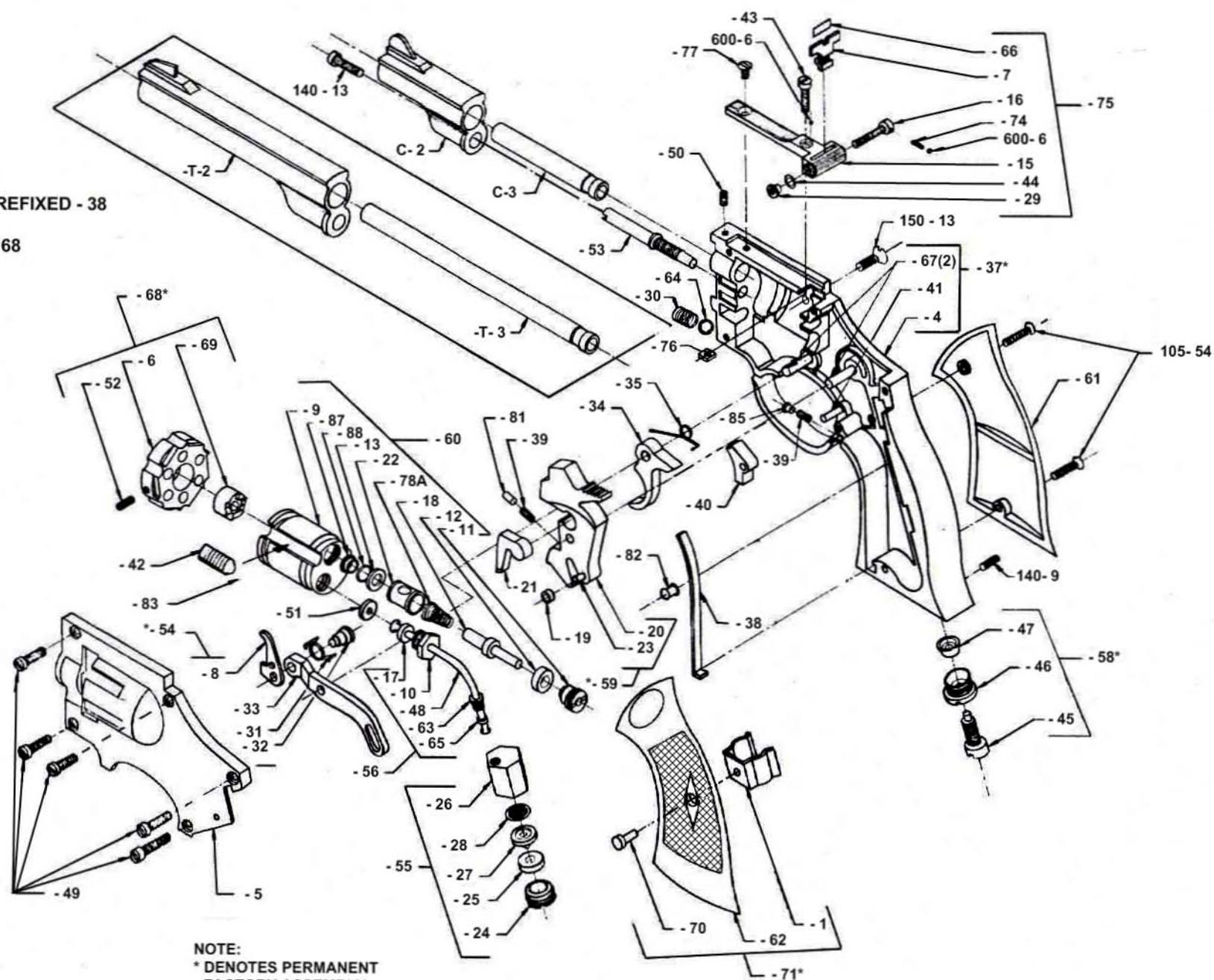
Magazine Tube 677-4 is inserted in Casting to reduce the opening to take balls.

Eyelet 677-15 is inserted in 166-32 "O" Ring to reduce CO₂ gas aperture.

See Page 19 -C thru 19-H for repair information.

**MODEL 38C AND 38T
ASSEMBLY DRAWING**
CROSMAN ARMS CO., 10/63

NOTE
ALL DASH NUMBERS PREFIXED - 38
EXAMPLE:
 - 68 LISTED AS 38 - 68



NOTE:
* DENOTES PERMANENT
FACTORY ASSEMBLY

DISASSEMBLY PROCEDURE FOR CO₂ PISTOLS - MODELS 38C & 38T

Refer to Drawings Page 23-1

CAUTION: Never remove Cover 38-5 while gun is under pressure and Powerlet is installed.

1. After all gas residue has been exhausted from Powerlet, continue to unscrew Screw 38-45, remove L.H. Grip 38-71.
2. Remove Barrel Housing Screw 140-13 and remove Barrel Housing 38-C2 or 38-T2 with slight twist to break loose at frame slots. **(DO NOT FORCE OR STRIKE)**. Loosen Barrel Set Screw 38-50, 3 turns with 5/64" Allen Wrench and remove Barrel 38-C3 or 38-T3.
3. Relieve Rear Sight Assembly tension by loosening (2 turns) Base Screw 38-77. Remove (5) Frame Screws 38-49 and Cover 38-5. **NOTE:** Sight Assembly 38-75 may now be removed if complete disassembly of gun is being accomplished. Be careful Sight Ball 600-6 under head of Elevation Screw 38-43 does not drop out. Remove Loader 38-42 and Spring 38-83 from Valve Body. Remove Detent Spring 38-30, Detent Ball 38-64, Sear 38-40, Sear Spring 38-39, Sear Spring Guide 38-85, Hammer Spring 38-38, Spring Pivot 38-82 and Roller 38-19.
4. Placing a hand over exposed components, turn revolver over and remove Valve Body Screw 150-13. Unscrew Shaft 38-53 with screwdriver and remove. Remove Valve Group 38-73, Lever Assembly 38-54 and Cylinder Group 38-68 intact with both hands, Remove Trigger 38-34, Trigger Spring 38-35. Remove Hammer Assembly 38-59. Remove Hammer Pawl 38-21. **NOTE:** Pawl Spring 38-39 and Guide Pin 38-81 will drop out.

IMPORTANT: Sear Pin 38-41, Hammer and Trigger Pins 38-67 are not removed. Cylinder Assembly 38-68 is a factory pre-assembled unit on special jig blocks for correct timing and should not be disassembled. Lever Assembly 38-54 is a factory pre-assembled unit and should not be disassembled. The Screw Assembly 38-58 is a factory assembled unit and should not be disassembled. To remove the assembly from the revolver Frame 38-27, a special tube wrench should be used. Remove 140-9 Lock Screw from frame. Loosen Powerlet Screw 38-45 and with special wrench, unscrew Bushing 38-46 for removal of the Screw Assembly 38-58.

5. **Disassembly of Valve Group Assemblies 38-73:**

NOTE: Separation of the sub-assemblies 38-55, 38-56 and 38-60 that make up the 38-73 Valve Assembly, should not be accomplished unless it is absolutely necessary. Care should be taken during disassembly and assembly of the above sub-assemblies so that End Seal 38-25, 38-65 Tube Seal, Gland Gasket 38-17, Valve Washer 38-12, 38-87 and 38-88 are not damaged, Lubriplate or Pellgunoil should be applied to all the above for ease in assembly.

Unscrew Gland Nut 38-10, place Piercing Block 38-26 in a vise, do not tighten excessively, unscrew Tube Bushing 38-63 separating the Tube Assembly 38-56 from the Valve Assembly 38-60 and Piercing Assembly 38-55. Remove Washer 38-51 from Valve Body. Do not disassemble Tube Assembly 38-56 further. This is a factory assembled unit.

6. **Piercing Assembly:**

Using a wide blade screwdriver, remove Guide Collar 38-24, End Seal 38-25, Piercing Pin 38-27, Piercing Screen 38-28 from Piercing Block 38-26.

7. **Valve Assembly:**

Using a special spanner tool or a wide blade screwdriver, modified for the purpose, unscrew Valve Seat 38-11, remove Valve Washer 38-12, Valve Stem 38-18, Valve Spring 38-78A, Spacer 38-22, Valve Washer 38-13 and Valve Stem Seals 38-87 and 38-88 from Valve Body 38-9.

8. **Rear Sight Assembly:**

Using 2 screwdrivers, one at Sight Bushing 38-29 and one at Windage Screw 38-16, counter rotate for removal. NOTE: Sight Ball 600-6 and Spring 38-74 may fall out. Remove Spring Washer 38-44. Use narrow blade of screwdriver and press on Sight Blade 38-7 through bottom slot at Sight Base 38-15 to remove sight blade and blade spring 38-66.

ASSEMBLY PROCEDURE FOR CO₂ PISTOLS - MODELS 38C & 38T

A clean work area, free of dust and foreign matter should be used when reassembling valve assemblies. Dirt particles introduced into the valves will cause leaks and damage valve seals. Valve seals should be coated with Lubriplate for ease in assembly and to prevent damage to seal during assembly.

Assembly procedure Is the reverse of disassembly with special note to the following:

1. Sight Assembly 38-75, should be carefully reassembled using extreme care not to force parts. The use of Lubriplate on Sight Balls 600-6 and Spring 38-74 -will aid In keeping parts together during reassembly. When assembly Is complete Sight Bushing 38-29 should be staked to end of 38-16 Windage Screw so that both parts turn as one unit.
2. Valve Spring 38-78A should be assembled with wide end towards 38-13 Valve Washer. Valve Washer 38-12 should be Inserted with finished side towards center of Stem 38-18. Valve Seat 38-11 should be screwed in until contact Is made with Valve Washer 38-12. Generally, an additional 1/4 turn will expand Valve Washer 38-12 sufficiently to make contact with Valve Body 38-9 wall and seal, If proper sealing Is not maintained, additional tightening may be necessary. Excessive tightening will result in deforming Valve Washer ,38-12, creating leaks and binding on Valve Stem 38-18.
3. Piercing Screen 38-28 should be thoroughly cleaned with proper solvents and forced air before installation.
4. Do not bend Tube 38-48. Bend is preset at factory to prevent binding against hammer. (See Page 23 A-4, Sec. E).
5. Place Piercing Block 38-26 In vise. **CAUTION: DO NOT OVER TIGHTEN BLOCK.** Screw Tube Bushing 38-63 into Piercing Block being careful not to damage Tube Seal 38-65. Check for proper position in gun frame before tightening.
6. Insert Washer 38-51 In Valve Assembly 38-60 and Insert Tube Assembly being careful not to damage Gland Gasket 38-17. Check for proper position In gun frame before tightening.
7. After assembly of Valve parts, insert Valve Group 38-73, Cylinder Group 38-68 and Lever Assembly 38-54 as one complete unit.
8. Loader 38-42 should be assembled with tapered or rounded edge towards cylinder. Loader Spring 38-83 should be assembled after installing Cover 38-5. Insert tight coiled end of Loader Spring 38-83 under Cover, just back of Loader. Compress and seat loose coiled end of Spring into Loading Slot, back of Loader with a suitable tool.
9. Velocity of projectile can be adjusted by positioning Spring Pivot 38-82 higher or lower between gun frame and Hammer Spring.

ANALYZING MECHANICAL DIFFICULTIES:

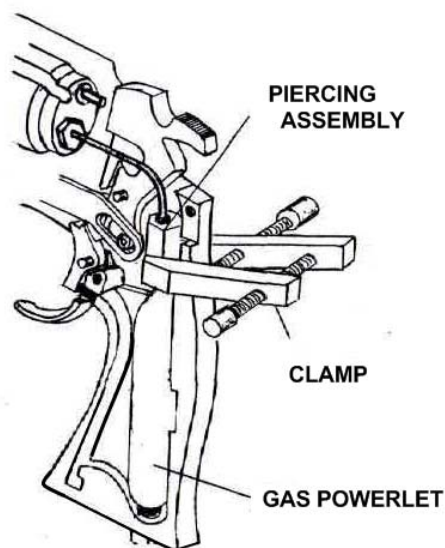
The Crosman Model 38 Revolver can be maintenance free -with, proper use and care as outlined in this manual. If after reassembly malfunctions should occur, the following are the most probable.

(1) <u>Malfunction</u>	(2) <u>Probable Cause</u>	(3) <u>Corrective Action</u>
(1) Hard Trigger Pull or cocking action	a. Check for Cylinder Ass'y. 38-68 rubbing on frame b. Not enough clearance between Barrel 38G-3 or 38T-3 and Cylinder Ass'y. 38-68. c. Pellet not fully chambered. d. Valve Body Screw 150-13 not tight. e. Tube Assembly 38-56 rubbing on. Hammer 38-20 f. Lack of lubrication at Hammer Spring and Hammer	a. Loosen Frame Screws 38-49 and move Cover 38-5 In the direction necessary to relieve pressure off cylinder, b. Remove Barrel Housing and loosen Barrel Set Screw 38-50. Insert .004 shim between cylinder and end of Barrel. Seat Barrel against shim, tighten Barrel Set Screw and remove shim. c. Rotate cylinder and fully chamber pellet or remove pellet if damaged. d. Tighten Valve Body Screw. e. A thin metal stock or machinist rule can be Inserted between hammer and tube to obtain clearance, or remove Cover 38-5 and carefully pull tube away from hammer. f. Lubricate (with Lubriplate) area In Hammer 38-20 where Hammer Spring 38-38 is inserted.
(2) Does not shoot in line with sights	a. Barrel not lined up properly with Barrel Housing.	a. Remove Barrel Housing 38-C2 or 38-T2 loosen Barrel Set Screw 38-50 and rotate barrel 38-C3 or 38-T3 to a new position.
(3) Low velocity	a. Spring Pivot 30-82 is too low.	a. Adjust Spring Pivot a little higher. Normal position should be approximately 1 1/4" from bottom of Hammer Spring 38-38.

(1) <u>Malfunction</u>	(2) <u>Probable Cause</u>	(3) <u>Corrective Action</u>
(3) Low velocity	b. Lack of lubrication in moving parts.	b. Check for proper lubrication at all bearing surfaces and where metal rubs i.e., trigger mechanism, cylinder assembly, etc.
(4) Gas leaks at Piercing Ass'y. Guide Collar & End Seal	a. Gun has been in storage extended periods without gas or End Seal 38-25 is compressed from Powerlet Cap and not permitting a good seal in cap after piercing.	a. First determine if leak is at End Seal 38-25 by placing a few drops of oil at Guide Collar 38-24. Bubbling oil indicates a leak. Place gun aside without a Powerlet to allow seal expansion. If this does not correct leak, replace End Seal 38-25.

CAUTION: To determine the location of other leaks requires the removal of Cover 38-5. Do not remove the (5) screws 38-49 and Cover 38-5 with gun under gas pressure. (Valve system is under 700 P.S.I, pressure under normal conditions). Exhaust all gas and remove Powerlet.

Using a parallel clamp or suitable clamping tool (Do not use vise grips or sharp jaw tools) attach per drawing. Insure that piercing Assembly 38-55 is secure and install a Powerlet, tighten Screw Assembly 38-58 as when normally charging gun to be fired. Place a few drops of Pellgunoil at Tube Bushing Small 38-63, Gland Nut 38-10 and Valve Seat 38-11 to detect any leakage.



PARALLEL CLAMP PROCEDURE FOR
CHECKING INTERNAL GAS LEAKS

CROSMAN PARTS LIST
MODEL 38C & 38T REVOLVER PARTS & PRICE LIST

<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>	<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
38-1	Clip	.10	* 38-33	Lever	.25
38C-2	Barrel Housing (3 3/4")	2.15	38-34	Trigger	.36
38T-2	Barrel Housing (6")	2.43	38-35	Trigger Spring	.50 Doz.
38C-3	Barrel (3 3/4")	1.45	* 38-37	Frame Ass'y.	5.35
38T-3	Barrel (6")	1.73	38-38	Hammer Spring	.09
38-4	Frame (Sold only as Ass'y. 38-37)		38-39	Sear Spring (2)	.50
38-5	Cover (Sold only in Match. Set (with 38-37)		38-40	Sear	.17
* 38-6	Cylinder	1.60	* 38-41	Sear Pin	.05
38-7	Sight Blade	.25	38-42	Loader	.13
* 38-8	Index Finger	.10	38-43	Elevation Screw	.12
38-9	Valve Body	4.60	38-44	Spring Washer	.50 Doz.
38-10	Gland Nut	.40	* 38-45	Powerlet Screw	.15
38-11	Valve Seat	.35	* 38-46	Bushing	.55
38-12	Valve Washer	.60	* 38-47	Screw Tip	.30
38-13	Valve Washer	.10	38-48	Tube	.30
38-15	Rear Sight Base	2.90	38-49	Frame Screw (5)	.50 Doz.
38-16	Blade Screw	.15	38-50	Barrel Screw	.05
38-17	Gland Gasket	.50 Doz.	38-51	Washer .	.50
38-18	Valve Stem	1.15	* 38-52	Cylinder Set Screw	.15
38-19	Roller	.18	38-53	Shaft	.85
* 38-20	Hammer	1.00	* 38-54	Lever Assembly	.80
38-21	Hammer Pawl	.12	38-55	Piercing Assembly	2.25
38-22	Spacer	.25	38-56	Tube Assembly	.90
* 38-23	Roller Pin	.05	* 38-58	Screw Assembly	1.04
38-24	Guide Collar	.25	* 38-59	Hammer Assembly	1.02
38-25	End Seal	.10	38-60	Valve Assembly	7.15
38-26	Piercing Block	.85	38-61	Grip R. H.	.20
38-27	Piercing Pin	.40	38-62	Grip L.H.	.30
38-28	Piercing Screen	.10	38-63	Tube Bushing Small	.25
38-29	Sight Bushing	.25	38-64	Ball	.05
38-30	Detent Spring	.50 Doz.	38-65	Piercing Body Tube Seal	.05
* 38-31	Index Finger Spring	.10	38-66	Blade Spring	.50 Doz.
* 38-32	Rivet	.20	* 38-67	Hammer Pin (2)	.05
			* 38-68	Cylinder Assembly	1.97

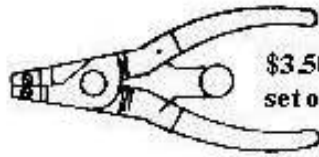
<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>	<u>Part No.</u>	<u>Part Name</u>	<u>Price</u>
* 38-69	Index Hub	.40	38-78A	Valve Spring	.20
38-70	Grip Stud	.50 Doz.	38-81	Guide Pin	.07
38-71	Grip L.H. Ass'y.	.65	38-82	Spring Pivot	.11
38-73	Valve & Piercing Ass'y.	10.74	38-83	Loader Spring	.50 Doz.
38-74	Ball Spring	.50 Doz.	38-85	Spring Guide	.50 Doz.
38-75	Sight Ass'y.	4.80	38-87	Liner	.50
38-76	Elevation Nut	.50 Doz.	38-88	Liner "O" Ring	.10
38-77	Sight Base Screw	.50 Doz.			

INTERCHANGEABLE PARTS

105-54	Grip Screw (2)	.50 Doz.
140-13	Barrel Housing Screw	.12
150-13	Valve Body Screw	.50 Doz.
600-6	Sight Balls (2)	.03
140-9	Lock Screw	.50 Doz.

*Denotes Factory Assembly

Used on Models
MK I - MK II
700 - 707 - 1100



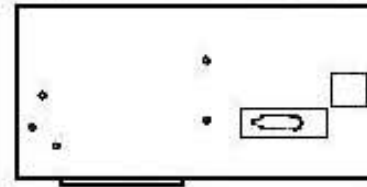
\$3.50 per
set only

To remove external
or internal snap ring

#444 Kit set of 2 Snap Ring pliers
1 - external
with interchangeable tips
1 - internal

Used on Model 166

To hold rifle when repairing



\$3.00

166 Gun Frame Jig

Used on Models:
44 - 36 - SA6 - 45
Pistols

To hold pistols when repairing

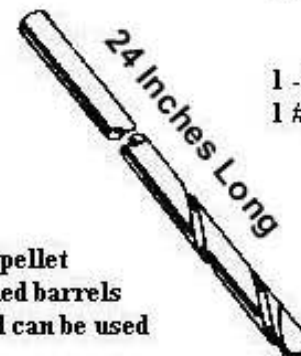


\$3.00

44 - 36 - SA6 - 45
Gun Frame Jig

Pellet Removal Drills
Two Sizes

1 - #.22 Drill \$3.50
1 #.177 Drill \$3.50



To remove pellet
from jammed barrels
an Ell Drill can be used

Used on Models:
M1 - V350 & 3500

To help
assemble
tube plugs
#350-35



\$1.00

MT-1-18 Stud Tool

Used on Models:
SA - C - 45 - 44 +38
Pistols

To Assemble
Retainer Ring
#45-51



\$2.00

45T-1 End Seal Retainer Tool

451-BL Barrel
Locator Gauge



\$1.00

Used on the Model
451 Pistol

To replenish valve seat



Stone
#538

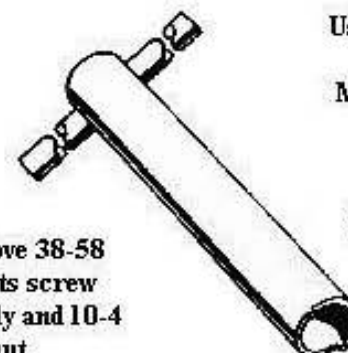
Including rubber abrasive
stone

\$2.00

451 T-3 Valve Replacing Tool

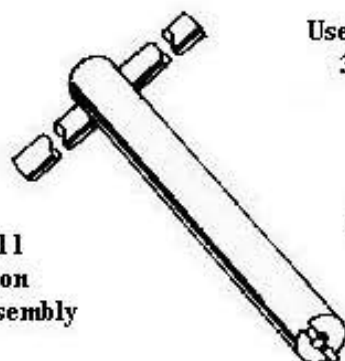
Used on Models:
38C - 38T -
MK I and MK II

To remove 38-58
powerlets screw
assembly and 10-4
barrel nut



\$2.00

T-38-58 Retaining Screw Tool

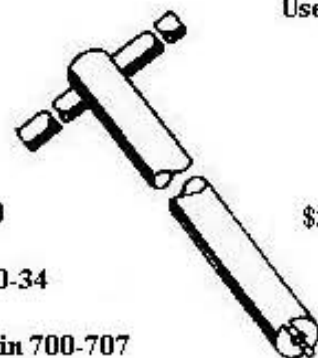


Used on Models:
38C and 38T

To remove 38-11
valve stem nut on
38-60 valve assembly

\$2.00

T-38-11 Valve Stem Nut Tool



Used on Models:
180 - 160
400 - 600
700 - 707

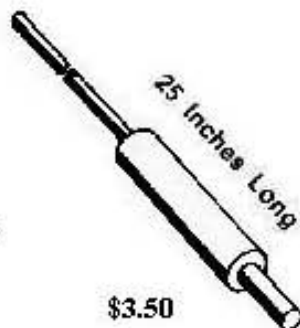
Remove piercing
body on 160-180-400

Remove valve nut 600-34

To reassemble valve in 700-707

\$3.00

T-9 Valve Body Dissassembly Tool



Used on Models:
160 - 180
400 - 600

To replenish
valve seat with
nut removing
valve

\$3.50

T8 Valve Face Dressing & Guide Tool

Stone
#538

To obtain proper
lever adjustments
before replacing
lever pivot pin

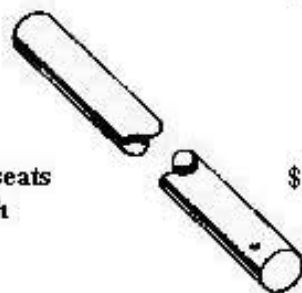
130-30

\$0.75



Used on all Air
Pump Models

T-2 Pump Adjusting Pin



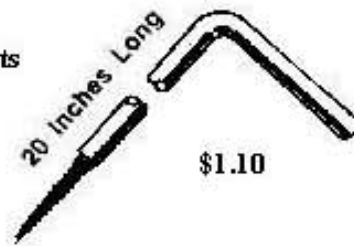
For Tools:
#T-8 & 451 T-3

To repolish valve seats
cut 2 1/2 inch length

\$1.00

#538 Valve Seat Replacing Stone

To remove
1 or 2 pellets
at a time



\$1.10

672-70 Pell Extractor Rod

For Models of
.177 & .22 Cal. Size Barrels



Used on Model 500
Part No. 500-65

\$1.00

To pull valve

\$4.00



Used on
Old Model Guns

105	113
106	114
108	115
109	116
110	118
111	120
112	

T-5 Valve Extractor

To remove
Valve Nut

\$3.00



T-1 Dismounting Wrench

Used on
Old Model Guns

100	111
101	112
102	113
104	114
105	115
106	116
108	118
109	120
110	

Used on
Model 622 Rifle



\$5.00

Barrel Chamber Reamer #657

Used on Hammer
Tube Assembly
In 622 Guns



622-54 Line Up Pin

Crosman® Arms Company

A DIVISION OF THE COLLMAN COMPANY, INC.

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FAIRPORT, NEW YORK 14450
716-223-6000